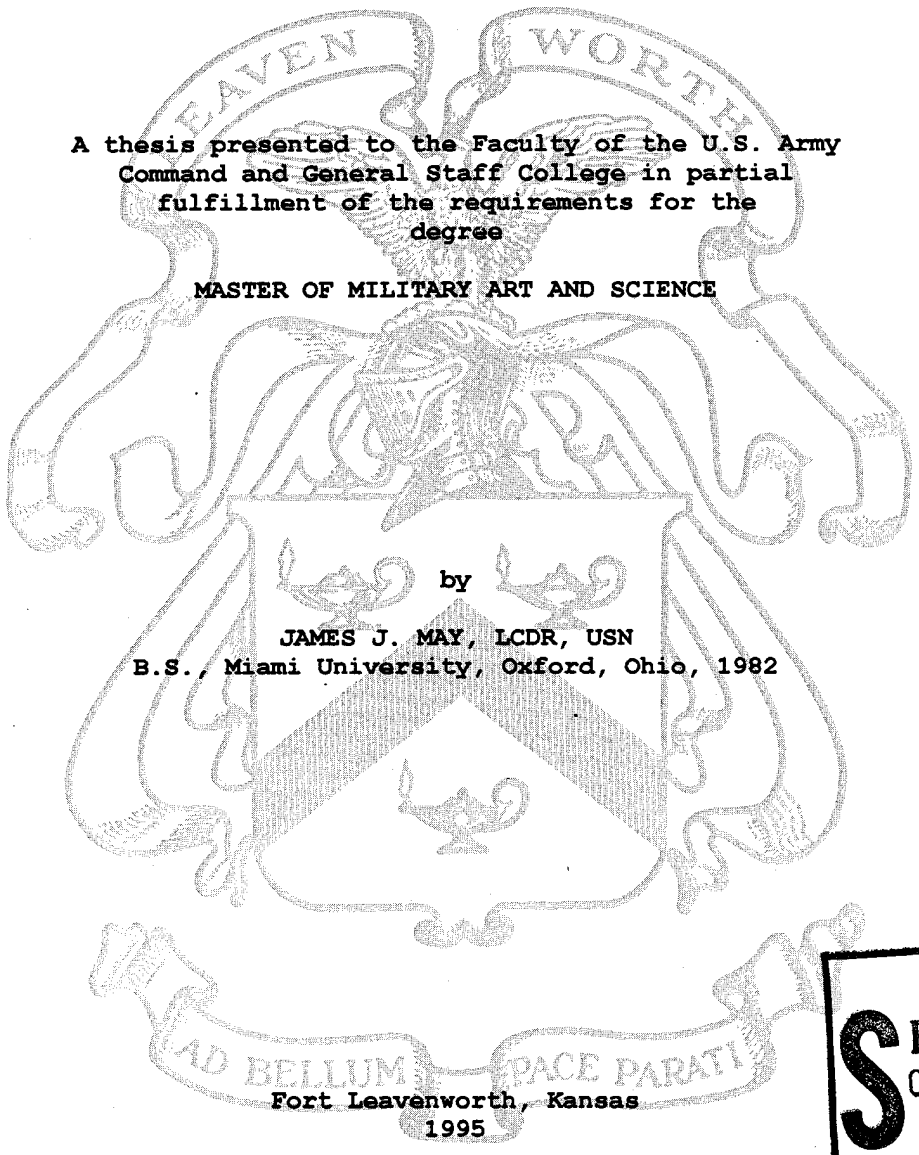
JOINT OPERATIONS IN THE NORTH CAROLINA SOUNDS DURING THE CIVIL WAR

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

JAMES J. MAY, LCDR, USN
B.S., Miami University, Oxford, Ohio, 1982



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This study is a historical analysis of Union joint operations that occurred during the American Civil War in northeastern North Carolina. The study begins with a historical overview of joint operations then transitions into the events that occurred in northeastern North Carolina between February 1862 and June 1865. Joint operations in the sounds began with the assault of Roanoke Island in February 1862. This study documents the Roanoke Island operation and the missions that supported the capture of New Bern, Plymouth and Washington, North Carolina during 1862. Specific emphasis is placed on the difficulties encountered conducting joint riverine warfare in the restricted waters of North Carolina without the benefit of a unified commander. Although the concept of a unified commander was not utilized in the sounds of North Carolina, this study documents the maturation of the joint relationship that did exist. It further displays how the joint forces overcame the challenges of communications and both natural and man made obstacles. Overall, this study shows how success in the waters northeastern North Carolina was dependent on a joint effort but could have been more successful had a unified commander been appointed. Conclusions include present day application and considerations.

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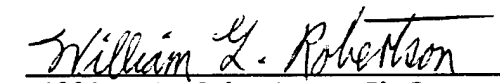
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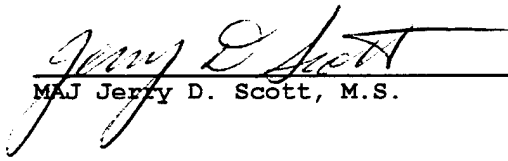
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ABSTRACT

JOINT OPERATIONS IN THE NORTH CAROLINA SOUNDS DURING THE CIVIL WAR by LCDR James J. May, USN, 155 pages.

This study is a historical analysis of Union joint operations that occurred during the American Civil War in northeastern North Carolina. The study begins with a historical overview of joint operations then transitions into the events that occurred in northeastern North Carolina between February 1862 and June 1865.

Joint operations in the sounds began with the assault of Roanoke Island in February 1862. This study documents the Roanoke Island operation and the missions that supported the capture of New Bern, Plymouth and Washington, North Carolina during 1862. Specific emphasis is placed on the difficulties encountered conducting joint riverine warfare in the restricted waters of North Carolina without the benefit of a unified commander.

Although the concept of a unified commander was not utilized in the sounds of North Carolina, this study documents the maturation of the joint relationship that did exist. It further displays how the joint forces overcame the challenges of communications and both natural and man made obstacles. Overall, this study shows how success in the waters of northeastern North Carolina was dependent on a joint effort but could have been more successful had a unified commander been appointed. Conclusions include present day application and considerations.

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CHAPTER 1

INTRODUCTION

This study is an examination of the joint Army/Navy operations that occurred in the sounds and rivers of northeastern North Carolina during the Civil War. The focus of the thesis is on the planning and execution of the joint operations between February 1862 and the conclusion of the war in June 1865. The goal throughout the thesis is to answer the following primary and supporting questions:

1. How did joint operations develop in the North Carolina sounds and rivers during the Civil War between February 1862 and June 1865?

2. What impact did environment have on joint operations?

3. Did joint planning occur and if so how did it effect the battles in the North Carolina sounds?

4. What effect did individual leaders and communication issues have on the development and success of joint operations?

The battles in this area of operations were greatly affected by the geography of northeastern North Carolina. Configuration of the North Carolina coast presents both ideal opportunities as well as significant challenges to the Army and Navy with respect to conducting joint operations. The North Carolina coast is bounded by a string of barrier islands which creates numerous sounds and provides a natural barrier for defense. Two of the largest sounds include Albemarle Sound and Pamlico Sound. Albemarle Sound in the north provided access to Plymouth, North Carolina through the Roanoke River and to Franklin, Virginia via the Chowan and Blackwater Rivers to the north. The Roanoke River also forms

an avenue of approach to a critical railway node in Weldon, North Carolina. From Weldon, the railroad lines extended to Norfolk and Petersburg in the north and to Raleigh, Goldsboro, and Wilmington in the south (see Figure 1). Maintaining control of these lines was crucial to the logistic support of the Confederate Army.

Pamlico Sound, in the central coastal region, provided an avenue of approach to Washington, North Carolina, on the Pamlico River and New Bern on the Neuse River to the south. The Neuse River, during flood stages, provided valuable access to Confederate forces encamped in Kinston and Goldsboro. Goldsboro became a principal objective as the war progressed due to the railroad node located there that connected Goldsboro to Weldon in the north; Raleigh in the west; and Wilmington, New Bern, and Morehead City in the southeast.

Although most of the rivers in the region were navigable, the Chowan and Blackwater Rivers were often narrow, overgrown by trees, and surrounded by high banks. These restrictions were particularly advantageous for the Confederate Army who felled trees across the rivers obstructing the advance of the Union gunboats. Also, felled trees were used to entrap the gunboats once they had passed up river. The combination of the high banks and blocked rivers enabled the Confederate soldiers to ambush the Union gunboats once they were trapped.

Another aspect of the region that greatly affected the Civil War battles was the challenging tidal fluctuations which the Union gunboats had to overcome. Heavy weather from the west often caused unpredictably low water that lasted several days. Furthermore, most of the sounds and their rivers had sand bars limiting the entrance depth to less than six feet. These sand bars shifted with the seasons, posing continual navigational hazards during low tide. Groundings were commonplace in the

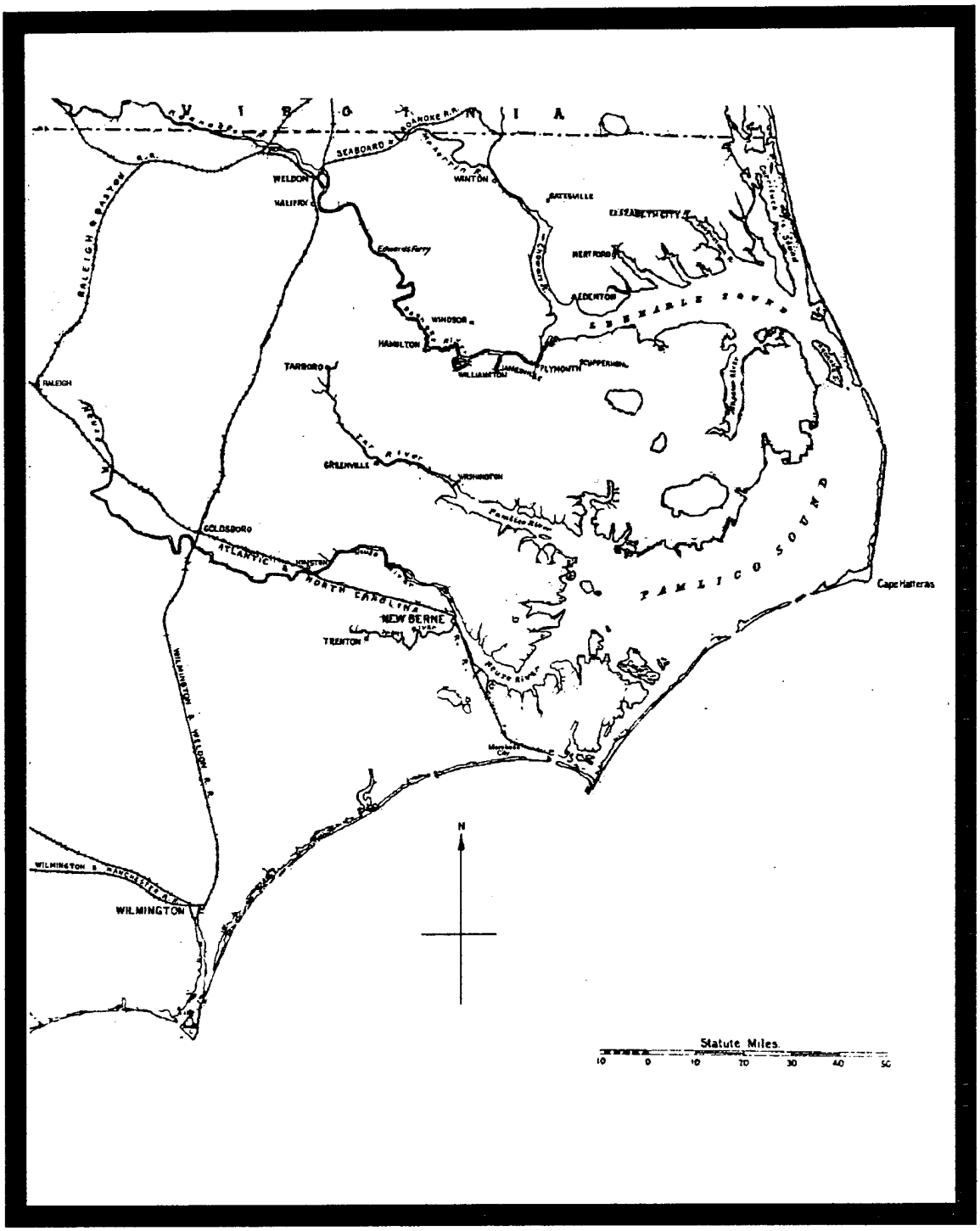


Figure 1. Railroad Lines in Northeast North Carolina in 1862. Source: Official Records of the Union and Confederate Navies in the War the Rebellion (Washington, D.C.: Government Printing Office, 1899) Series I, Vol. 8, 698

sounds, making the gunboats vulnerable to attack. As the war progressed, the naval forces eventually gained the necessary experience to overcome this challenge.

Successful joint Army/Navy operations have occurred in several instances throughout U.S. history; however, only informal accounts of these successes have been routinely recorded. With no established, formal method of recording events for future reference, leaders were unable to learn from the successes of the past when structuring future joint operations.

When the Navy was founded in 1794, there were no plans to use this force in conjunction with the Army. Not until President James Madison appointed a Board of Engineers in 1814 were the two forces required to work together. The initial composition of this board included both a Lieutenant from the Corps of Engineers and a Captain from the Navy. The purpose of the Board of Engineers was to "propose a system of coastal defense which would utilize the forts (of the Army) and the Navy".[1] Although the board presented a plan in February 1821, the concept never led to anything more than the mutual protection which was gained from coastal collocation.

The next significant period in which the Army and Navy worked in a joint operation was during the Seminole War of 1839. In this operation, Lieutenant John T. McLaughlin commanded the Navy's Mosquito Fleet, a flotilla of seven vessels, 140 canoes, and a miscellaneous assortment of small boats, in the Florida everglades. Although this early form of joint operations achieved little success in meeting its intent of capturing Indians, the joint operations conducted by this fleet of sailors, soldiers, and marines were well orchestrated. The compatibility of the joint forces in the everglades was well received by the Commander of the

Army of the South, Colonel William Jenkins. In the fall of 1841, Colonel Jenkins ordered Lieutenant McLaughlin to, once again, lead a flotilla of sailors, soldiers and marines. This time, McLaughlin was to lead an expedition in manned dugouts sailing from Punta Rossa, on the Gulf coast, to Fort Lauderdale on the Atlantic coast. Although unsuccessful with respect to capturing Indians again, the relationship which developed continued to foster joint cooperation which carried on throughout the Seminole War.[2]

The next historically significant joint operations to occur after the Seminole War included amphibious operations on the Pacific coast during the Mexican War. Although not truly joint as the military considers joint operations today, the coordination of ground forces and naval forces presented many of the same challenges that are faced in joint operations. Coordinated fire support is a primary example of one challenge the Navy overcame. Lieutenant Stephan C. Rowan, who later commanded a naval flotilla in the North Carolina sounds during the Civil War, commanded a joint landing party in a successful amphibious night attack on a Mexican outpost near Mazatlan in 1846.[3] Shortly after this victory, Rowan was again involved in two other successful landings of marines which captured Monterey and the Pueblo of Los Angeles. The experience gained in these endeavors served him well in his future assignment in North Carolina.

The next successful combined campaign was in March 1847 in which Lieutenant General Winfield Scott assembled 14,000 troops in New Orleans for what is believed to be the first joint Army/Navy amphibious assault. In this well orchestrated operation, Commodore David Connor transported Lieutenant General Scott's troops 1,000 nautical miles across the Gulf of Mexico and down the Mexican coast to Vera Cruz. At Vera Cruz the combat

loaded troops landed under the naval gunfire support of Commodore Connor's shallow draft gunboats which escorted the troop carriers.[4] This early joint effort contributed to the eventual capture of Mexico City. Had records of this event been more widely available, they would have provided valuable insight for the joint operation planners of the Civil War.

In each of the aforementioned cases, formal "after action" reports were not written, and those reports that were informally written were not widely disseminated. At the time, the concept of joint operations was not viewed as a trend for future warfare. The only significant continuity in the knowledge gained from joint operations was from the experiences of leaders like Lieutenant General Scott and Lieutenant Rowan. These two leaders were able to draw from their own experiences to better plan operations that would eventually occur in North Carolina.

In April 1861, General Winfield Scott, the General-in-Chief of the Army, developed his concept of how to win the Civil War. His plan involved a complete blockade of the Confederate coast line. Such a blockade would cover the Atlantic seaboard from Virginia to Corpus Christi, Texas and include the Mississippi. Scott's idea became known as the Anaconda Plan[5] and was comprised of the following basic components: (1) a coastal blockade under the responsibility of the Navy Department and (2) an army of 50,000 Federal troops and gunboats who would gain control of the enemy posts and shore batteries along the Ohio and the Mississippi Rivers. The overall concept of the plan was to envelop the Confederate States by gaining control of the Mississippi from the Ohio River to New Orleans and then link up with the Blockading Squadron stationed in the Gulf of Mexico. This would provide blockading forces from Chesapeake Bay to New Orleans then up the Mississippi, and effectively "strangle the Confederacy by enveloping it from all sides."[6] Although General Scott's

plan was never specifically implemented, later that month President Lincoln established a naval blockade which eventually encompassed the same basic ideas as outlined in the Anaconda Plan.[7]

On April 19, 1861, President Abraham Lincoln issued a proclamation which established a blockade of the coast from South Carolina to the Gulf coast of Texas. This blockade was later extended on April 27th to include the North Carolina and Virginia coasts. On May 1st, 1861 Flag Officer Silas H. Stringham was appointed to command a newly formed squadron whose mission was to implement the blockade. This squadron, known as the Atlantic Coast Blockading Squadron, was responsible for over 1,200 miles of coast and more than 100 sound and river openings from Alexandria, Virginia, to Key West, Florida. With only 14 vessels with which to blockade, Flag Officer Stringham was quickly overrun by blockade runners.

Blockade runners successfully utilized smaller, faster vessels in order to outdistance the Navy's blockade gunboats. The choice of smaller vessels did result in a significant reduction in cargo entering and leaving the southern coast, which in turn, reduced the income earned by the Confederates for financing the war. Though the blockade seemed initially ineffective because of successful blockade runners, the concept was in place and began to have at least an economic impact on the South.[8]

In May of 1861 a special Blockading Board[9] was established which monitored the progress of the blockading squadrons. The Board was directed to select two points on the eastern seaboard for use as coaling stations, stores depots, and harbors of refuge. In a special report on the Atlantic seaboard blockade dated July 16th, the board advised against operations in the North Carolina sounds. They did, however, recommend that the coastal inlets be blocked off, leaving only two or three inlets open to be watched by the blockading squadron. Based on the Blockading

Board's report, Assistant Secretary of the Navy Gustavus V. Fox recommended that the Atlantic Blockading Squadron be divided into two separate squadrons. The board felt that the Atlantic seaboard was too extensive and to complex to fall under one command. By September, the Navy Secretary had accepted this idea and ordered the squadron divided into a North and South Atlantic Blockading Squadron with the junction of North and South Carolina being the dividing line. With this division came the resignation of Flag Officer Stringham and the appointment of Flag Officer Louis M. Goldsborough as the Commander of the North Atlantic Blockading Squadron.

In October 1861 Brigadier General Ambrose Burnside, commanding general of the First Rhode Island Volunteers, presented the idea that a specially trained Army team could embark on naval vessels, be transported to coastal towns, and attack under gunfire support provided by the Navy. With this suggestion, Burnside set the stage for the battles that would regain control of the North Carolina sounds the following spring.[10]

The campaign in North Carolina began with the capture of Roanoke Island in February 1862. Roanoke Island provided the Union forces with a fortification and a stronghold to store the coal and supplies required for the joint operations to take place in North Carolina for the next three years. During the war years, numerous unilateral engagements occurred in the sounds and their tributaries, but the focus of this study is on the joint expeditions that occurred and the influence of the command structure on those joint operations.

At the start of the North Carolina campaigns, the Union command structure was considerably different from that which exists today. There was no Secretary of Defense, Chief of Naval Operations, or any single officer assigned as the commander-in-chief of the naval forces. Without a

senior staff member in the Navy to interface between President Lincoln's Administration and the Navy, the concept of joint operations did not carry down to the operational level very effectively. The chain of command as it existed within the Navy was strictly operational. At the top of the Union's command structure was the President. Directly subordinate to the President were the Secretary of War and the Secretary of the Navy.

The Navy's operational command structure under the Secretary of the Navy began at the squadron commander level. During the spring of 1862, the commander of the North Atlantic Blockading Squadron was Rear Admiral Louis M. Goldsborough. His immediate subordinate was Commander Stephan C. Rowan, the Commander Naval Forces, Sounds of North Carolina. This structure, reflected in Figure 2, is compared to the Army's command structure headed by the Secretary of War.

The Army command structure at this time was more clearly defined and consisted of a General-in-Chief of the Army who interfaced with the political community in Washington, D.C.. During the first half of 1862, the Army was headed by Major General George B. McClellen, the General-in-Chief with Major General John A. Dix, commanding the Department of Virginia, and Brigadier General Ambrose E. Burnside, commanding the Army's Department of North Carolina.

Between the years 1862 and 1865, there were several changes of command that occurred in the Union military organization. With these changes came new attitudes and opinions about joint operations. These changes had an impact on the selection of assets for individual operations and became more evident as the war progressed.

In order to establish a common understanding of the terms used throughout this thesis, the following definitions apply:

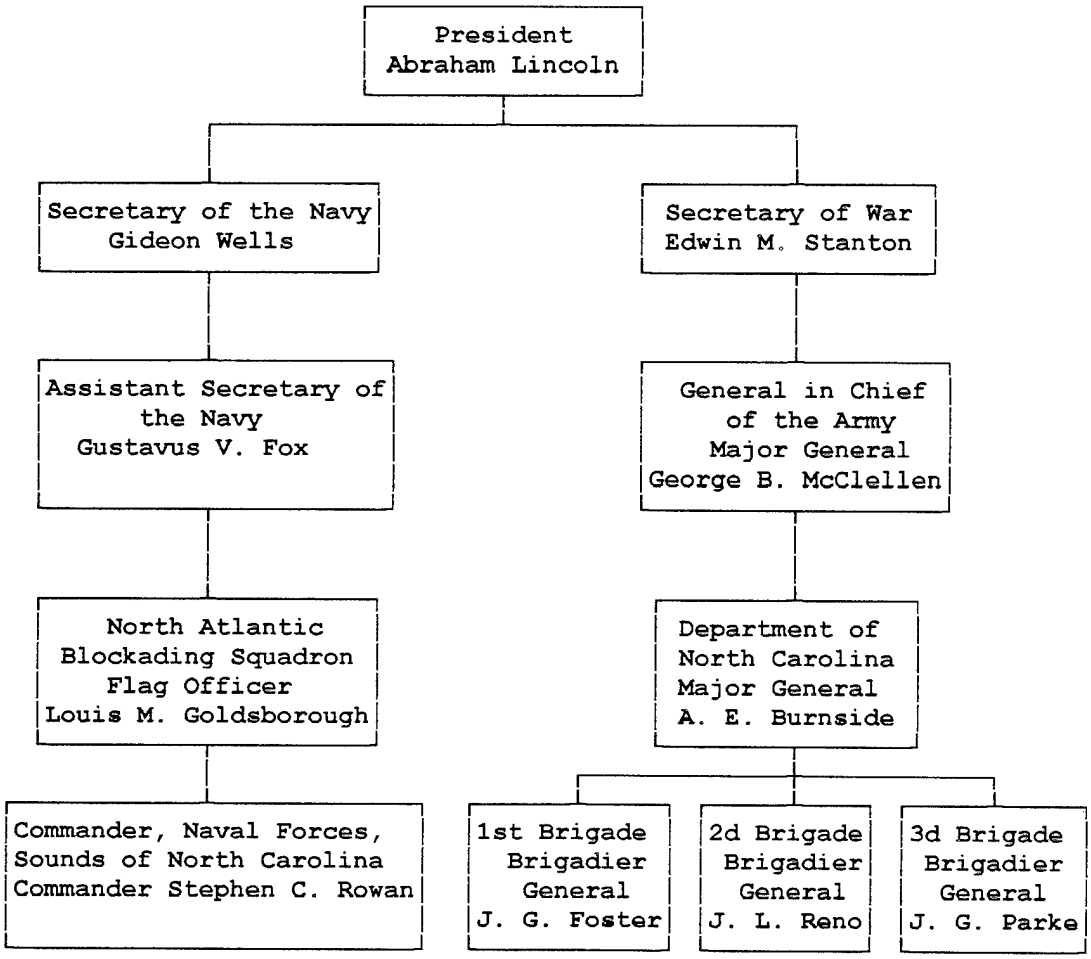


Figure 2. Union Command Structure in North Carolina in January 1862

Joint/Combined Operation: An operation conducted by two or more of the United States Armed Forces; in today's joint arena, "combined" pertains to an operation conducted by the forces of two or more separate nations. During the Civil War, these terms were used interchangeably and defined an operation in which two U.S. forces synthesized their efforts on one objective. Throughout this thesis, only the term "joint" will be used to describe operations in which both the Army and the Navy had participated.

Gunboats: During the Civil War, the need for vessels able to navigate the shallow waters of the North Carolina sounds and rivers exceeded the construction capability of the naval shipyards. As such, the Navy converted numerous shallow draft river steamers, side-wheeler ferry boats and tug boats to meet this need.

Many of the rivers in North Carolina were only eight feet deep and as narrow as one-hundred feet wide. These conditions made navigation very difficult and turning around impossible. Any vessels used could not proceed fast enough for their stern-mounted rudders to be effective. The use of ferry boats evolved because of front and rear-mounted rudders that allowed them to navigate up and down the narrow rivers without turning around.

Discussions of the joint operations in the North Carolina sounds in this thesis are organized chronologically with a chapter devoted to each year of the Civil War. Chapter 2 focuses on the events which occurred in 1862. It begins with an overview of the joint operation which led to the fall of Roanoke Island. Introduction of the joint concept led by Commander Stephen C. Rowan and Brigadier General Ambrose E. Burnside along the Neuse and Pamlico Rivers is included here. These operations led to the Union capture of New Bern on March 14th, 1862, and the engagements that followed later that year in Washington, North Carolina, and Franklin, Virginia.

Chapter 3 centers on the events of 1863. During 1863 the joint forces were called upon to defend New Bern and Washington. By the end of the year, the Union forces had established another base of operations in Plymouth and were developing plans to defend against a new threat in the sounds, the Confederate ironclad gunboat Albemarle. The Albemarle was

under construction in Edward's Ferry on the Roanoke River and intelligence reports indicated that she would attack Plymouth early in 1864.

Chapter 4 begins with the actions led by Lieutenant Commander Charles Flusser and Brigadier General Innis Palmer during the Confederate siege of Plymouth in 1864. This chapter also describes the numerous successful joint expeditions which occurred up the Chowan, Alligator and Scuppernong Rivers and culminates in the Union's recapture of Plymouth. Changes occurred in the leadership within the Navy during 1864 which had noticeable impact on the joint operations. Chapter 4 outlines these changes and demonstrates their impact on the developing joint concept.

As the war came to an end in 1865, there were limited joint operations conducted. Chapter 5 outlines these including the preparations made to conduct joint operations against two new Confederate ironclads under construction on the Neuse and Roanoke Rivers and the Army's movement to occupy Kinston. This chapter concludes with the details of the last joint expedition conducted in the sounds during the war and accounts for the dissolution of both the squadron in the sounds and the North Atlantic Blockading Squadron.

Chapter 6 synthesizes the information from chapters 2 through 5 and provides an analysis of the development of the joint concept, the difficulties that had to be overcome, and the effect the leaders had on that development. This establishes the goal of the thesis, to answer the primary question; "How did joint operations develop in the North Carolina sounds and rivers during the Civil War between February 1862 and June 1865?"

CHAPTER 2

JOINT MOVEMENTS IN NORTHEASTERN NORTH CAROLINA AND THE CAPTURE OF NEW BERN IN 1862

The naval blockade of the Confederate states had been in effect since April 1861 by order of President Abraham Lincoln. The North Atlantic Blockading Squadron was responsible for the blockade of the Atlantic coast from the North and South Carolina border to Alexandria, Virginia. Within this command organization, a subordinate command was established to coordinate operations within the sounds of North Carolina. To effectively implement the blockade in North Carolina, the Union needed to develop a concept of joint operations that would enable the Army to land infantry and artillery under the protection of naval gun fire and seize control of coastal towns. The senior leadership of the Army took the lead in developing the concept starting in 1861 with General Winfield Scott's Anaconda Plan. Although the Anaconda Plan was not executed in 1861, the Army again took the initiative in January 1862, when General George McClellan, the Union Commander in Chief, organized the area of operations into a manageable command called the Department of North Carolina. McClellan then ordered a meeting between the senior leaders of the Army and Navy's Atlantic Coastal region to coordinate joint operations that would effectively blockade that area.

On January 7th, 1862, General McClellan issued General Order Number 2 which delineated the following: "The State of North Carolina will hereafter constitute a separate military command, known as the

Department of North Carolina, under the command of Brigadier General Burnside."[1] This order gave General Burnside responsibility for the area which is defined as the state of North Carolina today. His mission was to attack and occupy Roanoke Island then move both inland and south along the coast of North Carolina. Burnside's first objectives were to occupy the city of New Bern and control the railroad from New Bern to Goldsboro.[2] The Union forces were then to move to Goldsboro and destroy as much of the north-south Wilmington and Weldon Railway as possible and render it unusable to the South. Destruction of the railway would effectively cut the Confederate Army's supply route between Charleston, South Carolina and Virginia. As Burnside's main effort moved inland toward Goldsboro, a supporting joint effort was to move south and occupy Beaufort and Wilmington along the coast as well as control all trade in the Pamlico and Albemarle Sounds region.

The North Atlantic Blockading Squadron under the command of Flag Officer Louis M. Goldsborough was responsible for the blockade of the Atlantic coast from the junction of the North and South Carolina border to northern Virginia. Included in this area were the sounds and tributaries of North Carolina as well as the Chesapeake bay. The Navy's mission was to assist in the transport of the Army's troops into and around the sounds region as well as to provide whatever support was necessary to enable the Army to capture and occupy coastal cities in an effort to suppress trade with the South. To support the Army's objective of destroying the railway system in North Carolina, the Navy was eventually given the mission of destroying several railroad bridges that crossed the tributaries of the sounds.

The relationship between General Burnside and Flag Officer Goldsborough included mutual assistance. A unified command structure, as

is commonly used today, did not exist. Neither officer took orders from the other yet control of the littoral was a mutually shared mission. The Navy's "marching orders" from the Secretary of the Navy were to enforce the blockade and "assist" General Burnside's command in every way possible. Conversely, General Burnside's orders from the Secretary of War were to complete his mission and to "coordinate" the use of the Navy's assets. The lack of a unified command structure created coordination difficulties throughout the war in the North Carolina sounds and often resulted in ad hoc arrangements which were insufficiently planned. As 1862 progressed, breakthroughs occurred which facilitated more productive joint operations. Although there were occasional setbacks, by the end of the year, the Army and Navy had built the foundation for an effective joint organization under the leadership of both Admiral Goldsborough and General Burnside.

Brigadier General Burnside, an artillery officer, served in garrison duty in the Mexican and Indian Wars up until 1853 when he resigned to manufacture firearms in Bristol, Rhode Island. In the years prior to the Civil War, Burnside had achieved the rank of Major General of the Rhode Island Volunteers. He had also been nominated to a position on the Illinois Central Railroad under his friend George McClellan. In 1861 he reentered the Army as a Colonel, commanding the 1st Rhode Island Volunteers. He was promoted to Brigadier General after the 1st Bull Run campaign in August 1861 and was given command of the four-brigade expeditionary force against the Confederate installations of coastal North Carolina. In March 1862 he was rewarded for his efforts in North Carolina with a promotion to Major General.[3]

Due to the transportation difficulties encountered by the Army in moving such a large force and supplies to North Carolina, General

McClellan procured ten transports, nine shallow draft gunboats, and five floating batteries for service in the sounds. The transports were either screw steamers or paddle wheelers, some of which were capable of carrying up to 1,000 troops each. Ferryboats were often converted for this use. The gunboats were steam propelled screw vessels, such as fireboats and tugs armed with 30-pounder Parrott guns and 12-pounder rifled fieldpieces. Any vessel that could be mounted with at least one gun was purchased or obtained by transfer from other government agencies. The floating batteries were 96-foot long barges that had two 12-pounder rifled Dahlgren guns and two 12-pounder mountain howitzers mounted on each. These batteries had to be towed into battle by either gunboats or transports. Though the Army vessels on this expedition were under General Burnside's command, they were often commanded by Navy Captains and were placed under the operational control of the Navy.

The North Atlantic Blockading Squadron, stationed on the North Carolina coast in January 1862 was commanded by Flag Officer Louis M. Goldsborough. It comprised 18 Navy gunboats which were a combination of double-ended ferry boats and shallow draft coastal steamers which had either screw propulsion or both sails and paddle wheels. Most of the paddle wheelers purchased for duty were constructed with the paddle wheels amidships on the side of the vessel, but a few of the smaller transports procured by the Army were smaller versions of the stern wheelers that cruise the Mississippi River today. The ferry boats had been purchased from transportation authorities in the Chesapeake and Delaware Bay regions as well as the New York harbor area. Virtually every vessel in the northern ports that could be converted into a gunboat was purchased by the Union Navy Department. By the end of the war, 479 vessels had been purchased.

Flag Officer Louis M. Goldsborough was General Burnside's naval counterpart at the outbreak of the Civil War. Goldsborough was commissioned a Lieutenant in the Navy in 1825 at age twenty. His early years in the Navy were in the Mediterranean Squadron where he earned a name for himself during a successful night expedition in which he led 35 men in an attack on a British brig that was the possession of 200 pirates. His promotion to Commander came while serving in the Pacific Fleet in 1841. In 1847 he was the executive officer of the frigate Ohio during the successful joint expedition under Commodore Perry and General Scott in Vera Cruz during the Mexican War. By 1852 he commanded the sloop-of-war Levant and was promoted to Captain in 1855, when he was assigned as the Superintendent of the Naval Academy. In 1861 he was ordered to assume command of the newly formed Atlantic Blockading Squadron and was promoted to Rear Admiral upon inception of that rank in July 1862.[4]

Goldsborough's immediate assistant was his Senior Officer in the Sounds, Commander Stephen C. Rowan. Rowan was appointed midshipman in 1826 and served on sloops-of-war and schooners in the Pacific fleet as well as in the Chesapeake Bay. In 1837 he was commissioned a Lieutenant and served on Coastal Survey duty. During the Mexican War he commanded a landing party that made a successful joint night landing against a Mexican outpost near Mazatlan. Rowan was promoted to Commander in September 1855. At the outbreak of the Civil War Rowan commanded the screw sloop Pawnee and participated in the attack and capture of the forts at Hatteras Inlet. In February 1862 he was assigned as the Senior Officer in the Sounds.[5]

On January 7th, 1862, Major General McClellan ordered Brigadier General Burnside to meet with Flag Officer Goldsborough at Fort Monroe, Virginia. The subject of the meeting was the upcoming joint operations that were to occur in the North Carolina sounds. More specifically, the

plans were to be laid for an amphibious expedition against the Confederate defenses on Roanoke Island in the sounds of northeastern North Carolina. Roanoke Island is strategically located in the channel which connects Albemarle Sound in the north and Pamlico Sound in the south. Control of this island would give the Union forces command of an avenue of approach to Norfolk in the north and Cape Lookout in the south. Additionally, seizing Roanoke Island would give the Union forces a stronghold to provide the logistic base for movement into the inland waterways of North Carolina.

The details of the meeting between Burnside and Goldsborough were not recorded but successful execution of a movement plan of this magnitude implies that the movement from Hampton Roads and into the sounds of North Carolina was meticulously planned. Future operations do suggest, however, that the command structure decided upon for the North Carolina expedition was not as painstakingly organized. The command organization delineated was one of mutual cooperation. A unified commander responsible for the overall conduct of the operation was not established. The Navy leadership was directed by the Secretary of the Navy to assist the Army in every way possible, but they were not told to subordinate themselves to the direct orders of the Army general. Historically, a rivalry existed between the services which would not allow the leaders to assume a subordinate position to another service without specific orders to do so.

Following their meeting which ended on Sunday, January 12, 1862, Flag Officer Goldsborough and Brigadier General Burnside departed Hampton Roads by sea. The following day both officer's vessels arrived at the anchorage inside Hatteras Inlet. By the end of that day, fifteen vessels had arrived in preparation for the attack on Roanoke Island. During the next three weeks, vessels continued to arrive carrying soldiers and

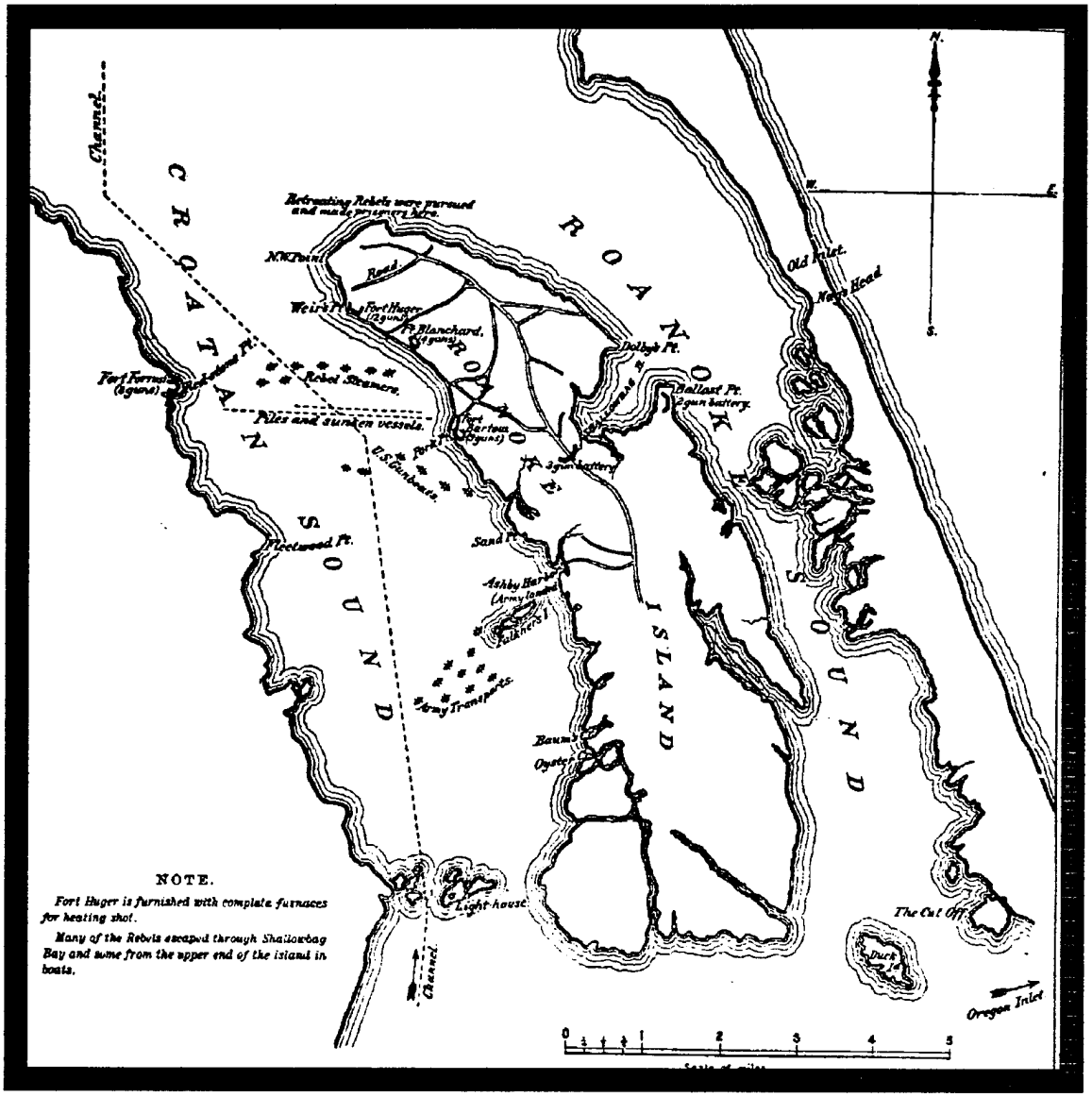
ammunition. As the forces mounted, Burnside realized the complexity of moving so many troops by vessel. The necessity to conduct further planning meetings became obvious and it appears from the official records that the collocation of Burnside, his three brigade commanders, Brigadier Generals Foster, Reno, and Parke, and Flag Officer Goldsborough was the driving force behind conducting impromptu planning sessions. Goldsborough's flagship, anchored nearby, became a convenient facility in which to conduct these meetings. Almost daily meetings held between the five leaders during the next week were needed to finalize the plans for the attack on Roanoke Island. One aspect of the assault plan which required review was use of the gunboats. The unusual assortment of vessels assembled for this operation resulted in regiments being split between more than one vessel. This meant coordinating the landings to ensure regiments were easily rejoined ashore. Another complication requiring revisions to the initial plan was the unusually severe weather which left the depth of the sounds less than expected, as well as weakened soldiers from acute sea sickness. Some vessels were unable to approach shore close enough to land the troops with their artillery which required shifting soldiers and equipment to shallower draft vessels before the offensive maneuvers began.

The South, realizing the value of the North Carolina sounds, had built fortifications to defend against just such an attack. The Confederate defenses on Roanoke Island consisted of three forts which were armed with a total of 22 heavy guns, including 100-pounder rifles, and one of the forts had furnaces for heating shot. Heavy armaments as well as upwards of 5,000 soldiers protected the forts. In addition to the forts, there were four batteries, comprising a total of 20 more guns, many of which were high caliber. In support of the land based defenses, eight

Confederate steamers, each having two 32-pounder rifled guns, conducted a mobile defense around the perimeter of the island. As Figure 3 shows, the extensive defenses of Roanoke Island presented a formidable challenge to the Union joint forces.[6]

The buildup of Union forces in the sounds continued and by February 5th, 12,000 soldiers, 18 Navy gunboats, 19 Army steamers, and more than 20 schooners and propeller tugs were assembled for the assault on Roanoke Island. At 11:25 A.M. on February 7th, the first Union shot was fired at the island; and by 5:30 P.M. on February 8th, the victory flag was raised. The Union forces had captured Roanoke Island, including over 3,000 Confederate troops, and the island became the North Carolina Sounds operations base that served the Union throughout the Civil War.[7]

As the Union Army organized its newly acquired base of operations, the escaped Confederate gunboats steamed towards the safety of Elizabeth City on the Pasquotank River. Though short of ammunition and supplies, Commander Stephen C. Rowan, Commander, Naval Forces, Sounds of North Carolina,[8] and Lieutenant Commander Charles W. Flusser, Commanding Officer, USS Commodore Perry, pursued these gunboats with thirteen Union vessels. The Union gunboats pursuit ended in an attack near Cobb's Point and Elizabeth City on February 10th, marking the beginning of the important North Carolina sounds battles. The initial two-hour battle resulted in the destruction of five confederate vessels, the capture of three others, and the Union occupation of the fortifications in Elizabeth City, North Carolina. With the occupation of Elizabeth City achieved, the Union forces had completed the first step toward Union control of the inland waterways leading to Norfolk. Burnside's next objective in Albemarle Sound would be Winton, North Carolina, on the Chowan River. Burnside saw this as a critical avenue of approach for the transportation



NOTE.

Fort Huger is furnished with complete furnaces for heating shot.

Many of the Rebels escaped through Shallowbag Bay and some from the upper end of the island in boats.

Figure 3. Confederate Defenses on Roanoke Island. Source: Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1897) Series I, Vol.6, 554.

of Confederate contraband and forces to and from the Chesapeake Bay region. Occupation of Winton would place the Blackwater and Nottaway

Rivers under Union control, thereby limiting the South's access to the Tidewater basin of Virginia.

On February 17th, Colonel Rush Hawkins, Commanding Officer, Ninth New York Infantry Regiment, part of General Parke's Third Brigade, met with Commander Rowan on Roanoke Island. The purpose of this meeting was to develop a plan for the joint movement up the Chowan and Blackwater Rivers and decide on a time of departure. The mission objective was the destruction of the Seaboard and Roanoke Railroad bridges that crossed the Blackwater and Nottaway Rivers near the Virginia border. During this meeting, it was decided that a daytime transit up the Chowan River to the Blackwater was safest. To accomplish this, the Union forces were required to depart Roanoke Island after dark.

The next day, February 18th, Commander Rowan departed Croatan Sound aboard the side-wheel steamer USS Delaware. He traveled to Elizabeth City by early evening where he ordered the side-wheelers Perry, Morse, Lockwood and the light screw steamers Louisiana and Whitehead to weigh anchor and proceed with him up Albemarle Sound. This was the first expedition up the Chowan River, and previous reconnaissance information was not available to Commander Rowan. Given the unknown location or size of the Confederate troops who might be encountered, Commander Rowan chose Perry, Hunchback, and Morse for this mission because of their heavier fire power. Combined, the Perry, Hunchback, and Morse were equipped with nine IX-inch guns as well as a 100-pounder cannon mounted on Perry. What Rowan failed to account for was how the narrow width of the river and the high banks would restrict the use of larger guns. The larger cannon barrels could not be aimed high enough to be effective against Confederates along the high river banks. Additionally, the maneuverability of the larger vessels, each being over 500 tons, was severely limited. The draft of

these vessels, often resulted in delays because the gunboats became trapped while attempting to turn around in the rivers or after running aground on the shallow sand bars.

While Rowan's small flotilla got underway from Elizabeth City, Colonel Hawkins assembled his troops on Roanoke Island to board the vessels Hunchback and Barney which departed at approximately midnight. Their orders were to rendezvous with Rowan at the head of Albemarle Sound as soon as possible.[9] Shortly after getting underway, the 517 ton Hunchback, the second largest vessel in the sounds in 1862, ran into difficulty and grounded in Croatan Sound due to the extra troops aboard. The grounding delayed their transit until the next morning. Although official records do not confirm the method used to free the vessel from the mud, common practice was to wait for the next high tide to raise the boat from the bottom. The Hunchback arrived in Albemarle Sound approximately twelve hours later, a time frame which is compatible with having utilized this method.

During the morning of February 19th, Commander Rowan sailed up the Chowan to conduct reconnaissance on the town of Winton with the gunboats Perry and Delaware. Upon their arrival, the gunboats came under heavy fire from Confederate artillery. Unable to return fire due to the high banks of the river, the Delaware was forced to turn around. The width of the river near Winton barely accommodated the length of the Delaware and she once again came under heavy fire while maneuvering in the river. At the same time, south of Winton, the Perry maneuvered into position and commenced shelling the Confederate troops with her IX-inch guns. Because of the heavy resistance encountered, Hawkins and Flusser collectively decided that instead of landing Colonel Hawkins' troops then, it would be

wiser to anchor south of the town and prepare for an early morning landing.[10]

At daylight on February 20th, the same small flotilla moved into position in an attempt to land the troops again. During the approach, the gunboats came under heavy musket fire from what was estimated by the Union forces to be 600 to 1,000 Confederate soldiers. After a short period of bombardment from the Perry and the Delaware, Colonel Hawkins was able to successfully land his infantry. The Union infantry moved into Winton unopposed, capturing a large quantity of military equipment and supplies as well as a Confederate schooner. "It was [decided] by Captain Rowan and Colonel Hawkins to burn all the military stores that could not be removed, with the storehouses and the quarters occupied by the troops, which constituted almost the entire town, there not being over twenty houses in the place."[11] While in Winton, Rowan and Hawkins obtained information that the Blackwater River was obstructed by fallen trees to the extent that the gunboats would not be able to pass. With this intelligence, the ultimate mission of destroying the Seaboard and Roanoke Railroad bridges on the Virginia border was abandoned. Colonel Hawkins' troops reboarded the Navy vessels and began their transit back to Albemarle Sound. Having disrupted the Confederate encampment in Winton, General Burnside could now focus his sights to the south on the city of New Bern, a railhead city south of Pamlico Sound on the Neuse River.[12]

In 1862 New Bern, North Carolina, was the second largest and second most important city in the state. Its location on the west bank of the Neuse River and north bank of the Trent River made it valuable to the South due to easy sea access. Additionally, one of the state's major north-south railways between Richmond, Virginia, and Wilmington, North Carolina, linked with the port of New Bern. A vast amount of the regional

cotton crop was transhipped from the railway to ships in New Bern and sold to Mexico and Europe. Capture of New Bern by Union forces would deny the South a major port from which blockade runners could transport goods to and from the central region of the state. Blockade running had become necessary to fund the payment of Confederate bonds and to purchase arms and munitions for the war. Furthermore, the capture of New Bern would give the north a stronghold from which to drive inland and deprive the Confederate Army of the sustenance it gained from the 10,000,000 pounds of pork and 40,000 bushels of corn produced in the six northeastern counties of North Carolina annually.[13] With the intent to economically cripple this geographic area, Brigadier General Burnside commenced his crusade to secure the southern sounds.

On February 28th, General Burnside informed Flag Officer Goldsborough that he had organized two bridge burning parties to sail for New Bern and Washington, North Carolina. Although his attack plan only required the Army soldiers under his command, he required assistance from Navy transports. Flag Officer Goldsborough quickly attended to this request and authorized Commander Rowan to transport Burnside's army regiments for these missions.

At 8:00 A.M. on the 12th of March, Commander Rowan departed from Hatteras Inlet with a flotilla of thirteen of the twenty vessels (see Table 1) assigned to him in the sounds of North Carolina, several Army transports, and 12,000 Army troops. Their mission was to sail south to the Neuse River capturing New Bern. Progress down the sound was slow. Army transports were heavily loaded with as many as 500 troops and an additional 600 were towed in surf boats behind the transports. Furthermore, as the day progressed, the weather deteriorated and heavy rain began and continued throughout the night. Despite these impediments,

the vessels had travelled the forty miles to the Neuse River and anchored off Slocum's Creek, approximately fifteen miles south of New Bern, by sunset that evening.[14]

That evening, March 12th, General Burnside convened a council of Generals Foster, Parke, Reno, and their naval contemporary Commander Rowan to plan the next morning's landings. There is no record of the command relationship between Burnside and Rowan during this operation but the official reports and correspondence indicate that General Burnside requested assistance from Rowan whenever necessary. Requests versus orders implies that Burnside did not have command authority over Rowan and

TABLE 1

VESSELS ASSIGNED TO THE SOUNDS OF NORTH CAROLINA ON MARCH 15, 1862

Name	Tonnage	Guns	Name	Tonnage	Guns
Brinker	108	1	Ceres	144	2
Commodore Perry	513	4	Commodore Barney	513	7
Delaware	357	5	Ellis	357	2
Hunchback	517	4	Lockwood	180	3
Louisiana	295	5	Morse	513	2
Philadelphia	500	1	Putnam	149	2
Shawsheen	180	2	Southfield	751	4
Stars and Stripes	407	5	Underwriter	341	4
Valley City	190	6	Whitehead	139	4

Source: Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1897) Series I, Vol. 7, xvii-xviii.[15]

indicates that the bilateral command relationship established earlier in the year still existed. At this meeting, Slocum's Creek was identified as a landing location. Once landed, the General's lead troops would provide the Navy with location identification using signal rockets as they advanced. The Navy gunboats, then knowing the troop's location would lead their advance with gunfire support. By the conclusion of the meeting, the leaders had decided that the gunboats would commence the operation in the morning by shelling the landing zone, then immediately land the Army's troops under the command of Generals Foster, Reno and Parke.[16]

Of the three brigades embarked on the New Bern expedition, Brigadier General John G. Foster commanded the First Brigade. Foster, a graduate of the Military Academy class of 1846, was commissioned in the Corps of Engineers where he served until the outbreak of the Civil War. At the start of the war he was assigned as the chief engineer of the Charleston harbor fortifications. In October 1861 he was promoted to Brigadier General and assigned to command General Burnside's First Brigade in the Department of North Carolina.[17]

The Second Brigade was commanded by Jesse L. Reno, a Military Academy classmate of General Foster. Commissioned as an ordnance officer, his assignments included teaching at West Point, chief of ordnance on the Utah Expedition, and command of the arsenals at Mount Vernon, Alabama, and Fort Leavenworth, Kansas. In November 1861 he was promoted to the rank of Brigadier General and assigned to command the Second Brigade of the Department of North Carolina under General Burnside.[18]

Burnside's smallest infantry brigade was Third Brigade, commanded by Brigadier General John G. Parke. Parke graduated second in his class from West Point in 1849 and served in the Corps of Topographical Engineers. Prior to the Civil War he was stationed in the Washington

Territories and conducted survey work near the border of Canada and the United States. In November 1861 he was reassigned to Burnside's expeditionary forces and was given command of Third Brigade.[19]

At approximately 6:30 A.M. the following morning the Navy gunboats and the Army gunboat Picket maneuvered into position to commence shelling the landing area with grapeshot and shell. At 8:00 A.M. the shelling ceased as the first of the troops made their landing under the concealment of heavy fog. The enthusiasm of the troops was high and several of them jumped from the landing boats into the waist deep water to wade ashore. Three regiments were ashore in as little as twenty minutes. Unfortunately, during subsequent landings, obstacles were found along the shoreline and the transports were unable to approach the shore closely enough to permit debarking the soldiers. The entire landing had to be conducted with the surfboats delaying completion until 2:00 P.M. Further complicating this first day's efforts were the muddy roadways and trails. Rain, which had continued throughout the night, made movement on the roadways cumbersome and at times impassable. With this in mind, General Burnside decided not to land all of the light batteries and wagons at Slocum's Creek, but decided to land the remaining troops further upstream later in the day. Even this modified plan could not be accomplished as planned due to heavy fog which lasted throughout the day and into the evening. Fortunately for General Foster, Lieutenant Roderick S. McCook of the USS Stars and Stripes had landed with a small detachment of men and six Navy howitzers. These were at his disposal and would substitute for the Army howitzers unable to land.

Lieutenant McCook's howitzers were under the charge of four naval officers and two Union Coast Guard officers, Second Lieutenant Thomas W. B. Hughes and Lieutenant Charles W. Tillotson. The Union Coast Guard was

established as the Naval Brigade in New York City under Colonel Washington A. Bartlett in April 1861. Bartlett had served in the Mexican War as a Lieutenant in the Navy and proposed organizing a brigade of seamen that would man gunboats and cruise the southern Atlantic coast, capturing towns, destroying bridges, and cutting railroad lines. By May the command was sanctioned by the War Department, and six companies were accepted into state service by the State of New York. In August 1861 the command was reorganized as a regiment of infantry under Colonel David W. Wardrop and was ordered to report to General Butler at Fortress Monroe. A month later, having been rejected by General Butler, the regiment was turned over to the State of New York where they received their numerical designation as the 99th New York Volunteers. During 1862, all of the companies of the 99th were assigned to vessels of the Atlantic blockade. Company B was assigned to General Burnside's forces in North Carolina and was attached to the gunboats Southfield and Hunchback, where they participated in the capture of New Bern.[20]

As the landing in New Bern progressed slowly due to the inclement weather, the cannons became stuck in the mud several times. "Had it not been for the assistance which was cheerfully rendered [to Lieutenant McCook] by the Army the pieces could never have gone forward."[21] The Army's assistance, provided by eight companies of the Fifty-first Pennsylvania Infantry, delivered the Navy's howitzers to the front of the formation by 2:00 A.M. the next morning. As the Union formation closed within musket and artillery range of the Confederate forces, they came under heavy fire. The Union maritime officers, unfamiliar with commanding howitzers ashore and slowed by inclement weather, lost two lives from the resistance. An additional eleven were wounded, and one was captured before the day ended. Even though these difficulties were encountered,

General Burnside commended Lieutenant McCook's detachment in that, "Too much praise cannot be awarded to the officers and men who performed this very arduous service ."[22]

General Burnside's brigades advanced toward New Bern throughout the day with the assistance of thirteen Navy gunboats and one Army gunboat, effectively shelling ahead of their advancing columns anytime the fog lifted. That evening the gunboats suspended the shelling and anchored abreast the lead regiments of the Union forces in preparation for the following day's engagements. The three brigades under General Burnside had advanced to approximately two miles from New Bern and set up a bivouac. That evening General Burnside visited Commander Rowan again to confirm the signals for the next day's main attack. The official records do not record specific signals they planned to use, but the success of the previous day's signals likely led to their use again. Unfortunately, they had not discussed contingency communications in the event communications were lost. On one occasion, Commander Rowan was unable to ascertain the location of the Union troops, so he unilaterally decided to continue firing until Burnside told him to stop. In Rowan's opinion, he knew the "persuasive effect of a [IX]-inch, and thought it better to kill a Union man or two than to lose the effect of [his] moral suasion."[23] Fortunately, his shells had a great effect on the Confederates and fratricide did not become an issue.

Reconnaissance estimates indicated that New Bern was defended by approximately 4,000 Confederate soldiers led by Brigadier General Lawrence O'Bryan Branch, CSA, and many of these soldiers had never been in battle before. In order to arrive at their objective in New Bern, the joint forces had to overcome five fortifications and two batteries (See Figure 4). Most of the South's defense positions were lightly entrenched as the

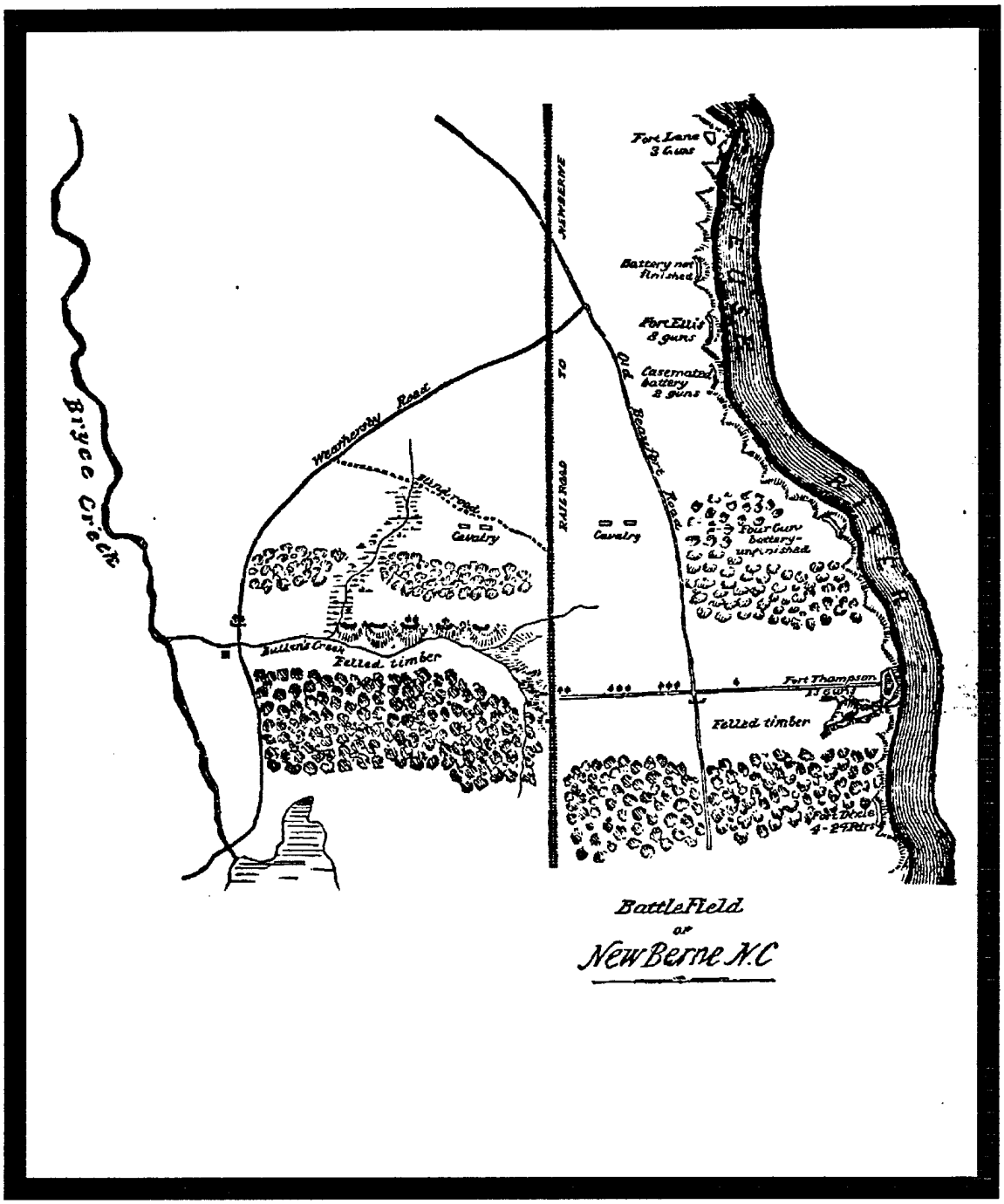


Figure 4: Approaches to New Bern, North Carolina in 1862. Source: The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies (Washington, D.C.: Government Printing Office, 1899) Series I, Vol. IX, 248.

troops had few suitable tools for digging in deeply. General Branch even attempted to muster support from the town of New Bern by circulating handbills to the local civilians and slave labor in hopes of recruiting additional help to prepare his New Bern defense. All his efforts were to no avail.

At dawn on March 14th, all three brigades prepared for the main attack on New Bern. The sailors and soldiers awoke to yet another foggy morning Commander Rowan received a report of cannon fire from ashore. He immediately ordered the gunboats to get underway, but the fog rendered the underway flag signals ineffective. Unable to communicate by flags, he resorted to sending USS Lockwood, one of his smaller side-wheel steamers, to follow the shoreline and verbally order each vessel[24] to get underway. The first two vessels underway, the Delaware and Southfield, were ordered to assume a position abreast of Fort Dixie, the first of the Confederate defenses they would encounter that day. Fort Dixie was located 11 miles south of New Bern and was defended with four cannons. After the gunboats bombarded Fort Dixie and received no return fire, Rowan ordered a launch ashore to investigate the fortification. After finding it abandoned they raised the Union flag above the fort and proceeded up the Neuse River. Because of the restricted visibility, the Navy was unable to communicate with the Army forces. As such, the gunboats were unaware that Fort Dixie had been abandoned and that the Army troops were already further upstream attacking Fort Thompson.

Fort Thompson was the Confederacy's most heavily defended stronghold between Pamlico Sound and New Bern. It was an earthen fortification located approximately ten miles south of New Bern. Immediately north of the fort was a temporary entrenchment or breastwork which extended two miles from the fort towards an impassable swamp to the

west. The fort itself was defended by twelve 32-pounder cannons, two of which were rifled. Of the 12 guns, four were directed toward the Army's avenues of approach, and eight were directed out over the Neuse River.

Still unsure of the Army's location, the Navy gunboats Delaware and Southfield sailed past Fort Thompson without resistance and took up a position seven miles upstream at Fort Ellis. From approximately 2,000 yards, a distance outside the range of Confederate cannon fire, the gunboats shelled the fort with rifled Parrott guns. By the time Fort Ellis was destroyed and the Delaware and Southfield's guns were silenced, cannon fire was heard to the south. The Navy gunboats realized the Army forces were still three miles south of Fort Ellis toward Fort Thompson. With this in mind, Rowan on board the Delaware ordered both vessels to move south and assist the Army by attacking the rear of Fort Thompson.[25]

Upon arrival at Fort Thompson, an officer was spotted on the shoreline. He frantically shouted a message from General Burnside that the gunboat shells were falling dangerously close to the Army infantry and that they needed to adjust their shot to the right. Following this adjustment and the resumption of the Union shelling, the Confederate forces ceased firing and the fort fell to the Union troops. The precision of the Navy's cannon fire was highly respected by the Confederate troops who soon realized that with the assistance of a gunfire spotter, the gunboats would accurately hit the target. This is reflected in a report from Brigadier General Branch, CSA in which he claimed, " The accuracy with which they [the Union shells] were thrown over a thick, intervening woodland convinced me of the necessity of driving traitors and enemies in disguise from all towns and neighborhoods of which we desire to hold military position."[26]

After the defeat of Fort Thompson, the gunboats proceeded up the river, shelling Confederate forts as they passed, including Fort Allen, an unfinished fortification with two cannons as well as Fort Lane armed with three guns. Receiving no resistance, the Union gunboats proceeded in column formation to New Bern unopposed. The greatest threats to the gunboats at this point were the Confederate obstacles that lay just beneath the water. Though the Navy was aware of the Confederacy placement of minelike obstacles throughout the sounds and rivers, they were unable to locate and mark all of the obstacles with buoys. Some in the Neuse River went undetected. In fact, during that afternoon, the Commodore Perry, the Commodore Barney, and the Stars and Stripes each struck obstacles that were emplaced beneath the surface of the water. These obstacles included pilings that were driven into the river bottom at an angle facing downstream. Some of these pilings were topped with iron-pointed caps to increase their penetrability. Additionally, torpedoes with as much as 200 pounds of explosives were often attached to the pilings. These torpedoes had "metal fuses connected to spring percussion locks with trigger line attached to the pilings."[27] In the case of the Perry, the hull was holed but the vessel was able to remain afloat. The Navy was aware that the Confederate forces had placed obstacles throughout the sounds and rivers, and the Union gunboats were able to locate and mark most of them with buoys. Unfortunately, some went undetected during the Neuse River transit conducted on March 14th.

By noon on the 14th the Navy gunboats had debarked at the wharf in New Bern without resistance. Commander Rowan made it known to the townspeople that the Union forces had no intention of injuring anyone or damaging any property. However, the Confederate forces fleeing New Bern had other intentions. As the Confederates withdrew from town, they left

behind a path of destruction. Public property as well as military property was set aflame if it could not be removed by the departing troops. Additionally, a burning barge was set adrift towards the Union fleet arriving at the wharf. As this barge lodged against the railroad bridge, the bridge caught fire and was destroyed. The Confederates themselves had achieved General Burnside's mission in New Bern prior to the Union Army's arrival.

It was not until 2:00 P.M. on the 14th that the lead Army troops arrived south of the Trent River across from New Bern. Commander Rowan directed several gunboats and transports to assist the Army's forces in crossing the river. By nightfall Commander Rowan had relinquished control of New Bern to General Burnside and his troops. The following morning Burnside issued Special Order Number 51 which appointed General Foster the military governor of New Bern and the surrounding area. As the soldiers bivouacked at the fair grounds in town, the gunboats, with the exception of Rowan's flagship Delaware which was tied up to the wharf, anchored in the Neuse River. In 28 hours the joint operations of the Union Army and Navy had captured nine forts, 41 heavy guns, two miles of entrenchments, 19 fieldpieces, six 32-pounders, 300 prisoners, 1,000 stand of small arms and had taken control of the second most important commercial city in North Carolina. Furthermore, with the capture of New Bern, the Union now had command of the Neuse River and the southern end of Pamlico Sound.[28]

Although the mission to New Bern was successful, the difficulties of river warfare were beginning to be realized. River warfare posed particular challenges for full-size gunboats. Besides the obstacles placed in the river by the Confederate forces, there were numerous natural obstacles that plagued Commander Rowan's fleet for the next three years. The depth of the river, shifting sand bars, and tidal information were

three key factors which influenced the outcome of numerous engagements. Heavy westerly winds often caused extremely low tides, restricted vessels to the deeper water in the center of the channel, and frequently resulted in groundings. Furthermore, the shallow water, combined with the narrow rivers, made turning the vessels around difficult if not impossible. These problems would rise again in future operations.

Additionally, shallow water influenced the ability of the gunboats to debark infantry close enough to the shoreline to wade ashore. In order to meet this challenge, oar-propelled surfboats were used to transport troops ashore. The gunboats had developed a technique whereby the surfboat was towed by the gunboat and the towline released causing the landing craft to drift toward the shoreline for debarking. The surfboats were then rowed back to the gunboat for the next wave of troops. Assault speed was obviously slowed by this laborious process.

Following the capture of New Bern, plans were laid for the next operation in the sounds, proceeding up the Pamlico River to capture the public property in Washington, North Carolina. Of particular interest to Commander Rowan was the return of the lens and the lens apparatus to the Hatteras light house. The Confederates had removed the lens and intelligence reports indicated that it was being stored in Washington. The tactical significance of this lighthouse was immeasurable because it assisted the Navy in locating Hatteras Inlet, one of the Navy's primary inlets leading from the Atlantic to the sounds.

Washington was known to be well defended and resistance was expected during this mission; there were at least two batteries below the town and the river was known to be heavily obstructed. Rowan needed to dispatch a formidable force to match this anticipated opposition. Commander Rowan assigned Lieutenant Alexander Murray the task of leading

the side-wheel steamers USS Delaware, USS Commodore Perry, and the screw steamer, USS Louisiana on this mission. Combined, these three vessels had five howitzers, including 12-pounders and 32-pounders and five IX-inch heavy guns. These guns would provide the necessary fire power to overcome any resistance dispensed by the fortresses along the Pamlico River.

On March 19th Colonel Thomas G. Stephenson embarked 200 soldiers of the Twenty-fourth Regiment Massachusetts Volunteers in the Army steam transport Guide.[29] Under orders from General Foster to proceed to Washington, the vessel departed New Bern at 7:00 A.M. the next morning. The Guide arrived under escort of the Navy gunboats the morning of the 21st to find the two batteries south of Washington deserted, but the river heavily blocked by submerged obstacles. These obstructions were impassable for the Guide which then had to be anchored while Navy gunboats shelled the area to clear a path. However, even with a clear passage, the river depth was insufficient for the troop transport. Colonel Stephenson met with Lieutenant Commanding Quackenbush of the Delaware to resolve this issue and subsequently coordinated transportation for the field officers and two companies of the Twenty-fourth onboard the shallow draft gunboat Delaware.[30]

With the challenge of moving troops to the wharf met, the Union forces were eagerly welcomed and the Union flag was raised above the courthouse. Later discussions with the townspeople revealed their favorable Union sentiments as they volunteered the information that the Confederate forces had taken the light house lens and apparatus to Tarboro when abandoning the town. With this information, Colonel Stephenson saw no reason to keep soldiers in Washington, and the Army troops reboarded the Delaware and the joint forces returned to New Bern. The Union forces encountered a two day delay in returning to New Bern when the

USS Commodore Perry ran aground. Again, the Navy fell victim to the unknown hydrography of the region.

During the months that followed, coal shipments routinely arrived at Roanoke Island in support of the Union forces. Expeditions from the Neuse River, Albemarle Sound, and Pamlico Sound to Roanoke Island became routine operations to resupply the forward encampments in New Bern, Elizabeth City, and Winton with coal and stores. While Commander Rowan and General Foster established their headquarters in New Bern for the North Carolina sounds campaign, Admiral Goldsborough and General Burnside orchestrated further operations to occupy the coastal towns of Beaufort and Morehead City. Control of these southern towns outside of the sounds was significant in that it gave the Union control of the railway extension that connected New Bern to the coastal port in Beaufort Harbor. Having established their headquarters, Rowan and Foster could now focus on their follow-on mission to move inland into the state and north into Albemarle Sound.

To begin the move northward, Commander Rowan dispatched Lieutenant Edmund R. Calhoun and his side-wheel steamer Hunchback on a reconnaissance mission up the Blackwater River on May 12th. The Hunchback was to determine if Franklin, Virginia, was occupied by Union or Confederate troops and to ascertain the extent of obstructions emplaced in the Chowan and Blackwater Rivers. Heading north on the Chowan River from Albemarle Sound, the river divides at the Virginia border. The Blackwater River bears to the north toward the James River and the Nottaway River veers to the north-northwest. Franklin is located nine miles north of the Virginia border on the Blackwater River, 50 miles north of Albemarle Sound. There was limited intelligence on this region, and there was a strong possibility of encountering Confederate forces. The Hunchback was, at the

time, the second largest gunboat of the North Atlantic Blockading Squadron stationed in the sounds. She displaced 517 tons and presented a formidable appearance with her three IX-inch cannons and one 100-pounder cannon. Though the Hunchback was very capable of self-defense should Confederate forces be encountered, she was joined by the 139-ton screw steamer Whitehead. During the following two weeks, numerous reconnaissance missions were conducted up the Chowan by these vessels in an effort to reach Franklin.

During each transit up the Chowan River to Franklin, the gunboats encountered several man-made as well as natural obstacles. The first obstruction encountered was approximately 400 fathoms of chain and several trees stretched across the narrow mouth of the Blackwater River. After clearing these, the vessels continued up the river until once again they were forced to stop because three schooners had been intentionally sunk in the river. The Union gunboats met this challenge by attaching lines to the schooners and dragging them towards the river's edge making a channel in which the gunboats could pass. Each day the Union vessels made slow progress up the river; however, the narrow breadth of the river and the resulting vulnerability forced the gunboats to return to the wider southern reaches each night to anchor.[31]

As the mission continued, the naval forces were confronted by natural obstructions as well. The depth of the river was found to be approximately 18 feet, and the breadth of the river was too narrow to turn the vessels around. The trees that overgrew the banks often impeded the gunboats' view and provided cover for the enemy along the shoreline making the gunboats doubly vulnerable. Though backing down the river was slow and tedious, the design of the Hunchback, luckily, facilitated this maneuvering process. She was a converted ferryboat and had a rudder

located at each end of the vessel. Having two rudders combined with paddle wheel propulsion, the Hunchback was able to drive further up the river than comparable screw steamers. Though the Union's vulnerability while in the Blackwater River was unforeseen, it proved to be a necessary risk as this mission provided invaluable intelligence for the October 1862 Franklin operations. While in Franklin, Flusser went ashore and determined that a country bridge over the Blackwater north of Franklin had been destroyed as well as the Roanoke and Seaboard Railroad bridge in town. He further ascertained that the railroad bridge over the Nottaway River to the west had also been burned. After confirming that the Confederate forces had evacuated Franklin, the Hunchback and Whitehead proceeded back to Albemarle Sound, reported their findings, and awaited further orders in Plymouth, North Carolina.[32]

The following four months brought about numerous changes within both the Navy and the Army commands in the sounds. Flag Officer Goldsborough and Commander Rowan were relieved and the blockading force dwindled to fourteen vessels. Additional changes occurred when General Burnside was relieved by General Foster, and the Army's Department of North Carolina was reduced by two divisions. The reduction in naval force had negligible impact on the operations in the sounds, but the decline in the Army's forces impacted future operations to the point that reassignment of additional troops was required later in the year.

The Navy's changes began in June when Flag Officer Goldsborough was ordered to reassign gunboats to the James River Flotilla in support of General McClellan's Virginia campaign. By the end of June, the number of gunboats in the sounds dwindled from 21 to 14 (see Table 2). The tactical reassignment of vessels to the Virginia peninsula region was the beginning

of the James River Flotilla build-up that would lead to Goldsborough's reassignment to Washington, D.C..

On July 6th Secretary of the Navy Gideon Welles ordered Captain Charles Wilkes to assume command of the James River Flotilla, a command that had previously been under the direct control of Flag Officer Goldsborough. Welles informed Goldsborough that this flotilla would now be considered an independent division and that Wilkes would report directly to the Department of the Navy with respect to operational matters, but would be supported logistically by Flag Officer Goldsborough. The press capitalized on this division of command and reported it in such a way that Goldsborough wrote that he was being subjected to "the most scurrilous and unmerited attacks on the part of the public prints."[33] Goldsborough felt these reports had a prejudicial effect on his character in the eyes of those serving under his command. Due to this perceived loss of respect, Goldsborough requested to be relieved as the Commander of

TABLE 2

VESSELS ASSIGNED TO THE SOUNDS OF NORTH CAROLINA ON JULY 1, 1862.

Name	Tonnage	Guns	Name	Tonnage	Guns
Brinker	108	1	Ceres	144	2
Commodore Perry	513	4	Ellis	357	2
Granite	75	1	Hetzel	200	2
Hunchback	517	4	Lockwood	180	3
Louisiana	295	5	Philadelphia	500	1
Putnam	149	2	Shawsheen	180	2
Seymour	133	2	Whitehead	139	1

Source: Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1897) Series I, Vol 7, xvii-xviii.

the North Atlantic Blockading Squadron which Secretary Welles promptly approved. The two-month process of finding a relief began immediately.

During this same time, but prior to Goldsborough's relief, the Navy Department promoted Commander Rowan to the rank of Captain and ordered him to assume command of the USS Powhatan, a major ocean-going command. Because Commander Rowan was Goldsborough's second in command, a relief had to be identified. Lieutenant Henry K. Davenport was appointed as Rowan's relief as the Commander of the North Carolina Sounds. Davenport had joined the Navy at 18 years of age and had served on several steamships in the Coast Survey division, the Pacific, East India, and North Atlantic Blockading Squadrons. He had gained thorough experience in the sounds while involved with the attacks on Roanoke Island, Elizabeth City, and New Bern and was assigned as the Commanding Officer of the Hetzel at the time of this appointment. Upon assuming command of the sounds, he was promoted to full Commander.

Early in July, changes occurred in the Union Army's leadership as well. Major General Burnside was transferred with the Second and Third divisions of his corps to the Army of the Potomac under General McClellan. Burnside appointed Brigadier General Foster to assume the duties as Commanding General of the Department of North Carolina. With this position, Foster was brevetted to Major General.

By late August Secretary Welles had decided that Captain Samuel Phillips Lee was the officer most capable of assuming command of the North Atlantic Blockading Squadron to replace Flag Officer Goldsborough. Captain Lee joined the Navy at fourteen and had served at sea during most of his career. His earlier assignments included both sail and steam ships of the Coast Survey fleet in the Chesapeake Bay, and he assumed command of his first vessel at the age of 32. Subsequent command experience included

command of the brig Washington during the Mexican War in 1847 and command of the sloop Vandalia during blockade duty off Charleston, South Carolina, at the start of the Civil War. At the time Welles chose him to command the North Atlantic Blockading Squadron, he was in command of the Oneida, a steam sloop on the Mississippi River. His background in river warfare commands provided him a vast amount of experience in working with the Army and in conducting river warfare in the Mississippi region. In August Secretary Welles promoted Lee to Rear Admiral[34] and on September 4, 1862, Admiral Samuel P. Lee assumed command of the North Atlantic Blockading Squadron.

On September 6th, the Confederate Army conducted a surprise attack on Washington before sunrise with an estimated force of 1,000 infantrymen. During the two and one-half hour attack the Army held the Confederate forces at bay until the Union artillery gunners had suffered too many losses to continue to be effective. At that time Colonel Edward E. Potter pulled his forces back from their defensive positions and requested gunfire from the Louisiana which was stationed off Washington for just such a contingency. She immediately and accurately responded with her VIII-inch and 32-pounder cannons firing variable timed shells and grape shot into the town and effectively forced the Confederates to retreat.

The greatest loss to the Army during this early morning skirmish was an explosion on the Picket, a Union Army gunboat, which caused her to immediately sink. Although the gunboats were receiving musket shot over their decks, the cause of the explosion on the Picket was determined to be an internal magazine accident.

While this small force was attacking Washington, Confederate forces gathered near Franklin, Virginia, for an advance on Suffolk. With the knowledge of this buildup, the Union forces in Suffolk were given a

twofold countermission by Major General John A. Dix, Commanding General, Department of Virginia. The first mission was to destroy a floating bridge in Franklin. This floating bridge had been constructed as a replacement for the Roanoke and Seaboard Railroad bridge and supported the Confederate movement eastward. The second mission was to disrupt the enemy forces that were assembling near Franklin to attack Suffolk. Since Franklin is situated on the Blackwater River and easily accessed from the North Carolina sounds, General Dix requested gunboat support from Admiral Lee. This request was promptly fulfilled and Lieutenant Commander Charles W. Flusser, stationed in Plymouth, was assigned to fully support the Army in their endeavors. Flusser expected to encounter only one battery and anticipated it could be easily overcome by General Dix's fire. Admiral Lee relayed this information to General Dix while informing him that naval forces would arrive in Franklin at 6:00 A.M. on October 3d.[35]

Lieutenant Commander Flusser graduated sixth in his Naval Academy class of 1853. After graduation he was assigned to the brig Dolphin which deployed to South America and the Paraguayan Expedition. In January 1861 Flusser was ordered to the Naval Academy as an instructor of tactics and gunnery. During the relocation of the Naval Academy from Annapolis to Newport, Rhode Island, in the spring of 1861, Brigadier General Butler noticed the boundless energy of this young officer. By Butler's personal request, Flusser was assigned as the Captain of the Port of Annapolis, responsible for the Army transport service. In August 1861 Flusser was assigned to blockade duty in the South Atlantic Blockading Squadron on the sailing vessel Jamestown. In January 1862 he was ordered to take command of the Commodore Perry and later that spring took part in the attack on Roanoke Island and New Bern. By May the Perry had been moved to Plymouth

and Flusser had been placed in command of the naval forces in Plymouth, a position he held for the next year.[36]

On October 2nd the Commodore Perry, Hunchback, and Whitehead departed Plymouth under the command of Lieutenant Commander Flusser. Five hours after their departure, a messenger arrived with a communication from General Dix which reported that "In consequence of some unexpected obstacles [the Army] cannot be ready until about the 10th proximo . . . [and that Dix] will give [Flusser] three days' notice"[37] before movement.

Contradictory to General Dix's report to Flusser, General Peck ordered a reconnaissance detachment to leave Suffolk, Virginia, on the evening of October 2d because he had received a report of the Confederate pickets advancing within five miles of the Blackwater River. Analysis of the correspondence surrounding the October skirmish on the Blackwater River revealed that General Peck was aware of Dix's plan to move toward Franklin on or about October 10th, but Peck's own apprehension resulted in a mission being detached prior to Dix's planned departure. This is best revealed in Peck's correspondence to Dix in which he states that even though October 9th would have been a better day to move on Franklin, Peck "felt anxious about matters in the direction of Franklin; the more so as the enemy was advancing ."[38] Because of this anxiousness, Peck dispatched a reconnaissance force led by Colonel Samuel P. Spear at 9:00 P.M. on October 2d.

Colonel Spear, of the Eleventh Pennsylvania Cavalry, his reconnaissance force of 1,300 infantry and one section of artillery arrived in the vicinity of Carrsville the following morning. Their mission was to survey the region and determine the extent of the Confederate forces in the area south of Suffolk. As Spear's

reconnaissance force advanced on the Blackwater River from the north, Flusser's gunboats steamed up the Blackwater from the south.[39]

At 7:00 A.M. the next morning, Flusser's flotilla arrived three miles south of Franklin and immediately came under heavy musket fire from Confederate soldiers on the high banks of the river. It quickly became evident that General Dix's forces were not present. The tight river bends made it necessary to send a sailor ashore with a hawser to be tied to a tree. With this hawser, the vessel was pulled around the bend, sometimes dragging through the muddy bottom and along the shoreline. It was reported to take up to 30 minutes to round some of the bends which made the gunboats very vulnerable during the transit.

Additionally, the high banks of the river made it impossible for the Union gunships to fire back with cannon fire because the IX-inch and 32-pounder gun elevation was insufficient to aim that high. In addition to the Confederate sharpshooter activity, several trees were cut down across the river to delay the Union approach. The Union vessels were capable of penetrating the tree blockage but the Confederate musket fire was too heavy. While the Union gunboats pressed onward, the rebel troops cut more trees down behind them to entrap them up the river. Even under these adverse conditions, the drive of the Union flotilla was evident as they continued north to a position approximately one mile south of Franklin. The three gunboats continued to bombard the opposition until 10:30 A.M., when they assumed the Army was not going to arrive. At that time Flusser ordered the flotilla to head downstream, forcing their way through the obstructions behind them. Although source documents do not indicate why the Navy presumed the Army was not going to arrive, historically, Burnside's troops had been punctual when synchronizing their efforts with the Navy in the sounds. This was the first joint operation

Flusser had conducted with General Dix's command; and assuming they would be as timely, Flusser likely determined they would not arrive at all.[40]

Meanwhile Spear's forces confronted the Confederate forces near Carrsville, six miles east of Franklin. Upon meeting, a one-hour skirmish ensued in which Spear's troops drove the Confederate forces southwest to the Blackwater River. Spear's findings led him to estimate that a Confederate force totalling 10,000 occupied the area surrounding Franklin, Virginia. Hearing naval gunfire in the distance, the reconnaissance force moved towards Franklin arriving around 1:00 P.M.. Reports indicated that the Army reconnaissance heard the Navy cannons firing downstream and assumed they were obstructed and unable to get to Franklin, unknowing the gunboats were already heading back downstream. The Union Army aggressively fought the Confederate forces for almost six hours awaiting the Navy arrival. By 7:00 P.M. they were forced to retreat as darkness approached. The Union forces would not fight in Franklin again until the first week of December when General Peck's cavalry returned as a distraction for General Foster's movement into Goldsboro. This December expedition, which started as a joint operation, would eventually turn into a single service effort.[41]

The joint expedition to Franklin was destined for failure from its inception because the senior leaders failed to coordinate an effective plan for this difficult operation. The concept of synchronizing an attack with gunboats that had to travel more than 70 miles upriver and an infantry force which had to travel over 20 miles on foot was far too complicated to plan by correspondence. Yet the official records do not indicate any attempt was made to coordinate this plan in person. Furthermore, the gunboats had not been apprised that a reconnaissance force would be in the area, an error which could have led to fratricide.

Another complication was the coordination which had to occur across departmental boundaries between the Navy's gunboats, which until this time had only worked with the Department of North Carolina, and Dix's Department of Virginia. Coordination of signals and synchronizing support did not appear to have been planned for. This coordination would have been greatly simplified through the use of a unified commander as is done today.

Further hindrances to this operation were the communications between leaders and the limitations of the geography. Not only were the communications tardy but the messages sent were not always clear and concise. Communications throughout this joint endeavor were clouded by ambiguous statements with respect to arrival times and departures. Reports often stated "early morning" or "at night" instead of using specific times. The underlying shortcomings in this operation were the lack of a unified commander, the failure to coordinate the operation in person as was done in the past, the imprecise coordinating instructions, and the slow, inefficient messenger process which was too time-consuming to effectively synchronize complex operations.

Geographically, Flusser failed to consider the limiting width of the Chowan and Blackwater Rivers. Commander Rowan, onboard the Hunchback, had experienced similar adversities five months earlier during his reconnaissance of the Blackwater River. The problems encountered by Rowan were reported to his senior commander but apparently were not recorded for future reference onboard the Hunchback or in headquarters files. If there were journals available, neither the official records nor Lieutenant Commander Flusser's actions reflect that they were reviewed prior to this expedition.

The leaders of this joint effort did not view this failure as a coordination or communication deficiency. Instead, correspondence of the senior leaders implied that the problem arose from trying to cooperate with the sister service as well as an uncertainty as to whether they should be operating in the sounds at all. In a letter from Admiral Lee to Secretary Welles on November 14th, Lee stated that "Commander Davenport is strongly opposed to engaging the gunboats on such expeditions on account of their unfitness for service in these narrow and crooked rivers."[42] Lee further defended this sentiment when he added, "It is obvious that, where the situation does not allow the gunboats to take care of themselves, they can not assist the army."[43] These opinions were not confined to the Navy leadership. General Peck wrote to General Dix on October 4th that he felt "there is great uncertainty in operations with gunboats."[44] Fortunately, these opinions were merely superficial and did not impact the joint operations that continued during the remainder of the year.

In November the Union Forces were divided between Plymouth, New Bern and Washington. The number of gunboats stationed in the sounds remained at 14 as it had since July. On November 2d, Commander Davenport and General Foster embarked on what appears by the official records to be the best coordinated joint operation in 1862. The joint mission was two-fold. General Foster wanted to conduct an expedition through all the eastern counties of the state, to include the town of Hamilton on the Roanoke River, and capture three regiments that were known to be foraging in those counties. Commander Davenport wished to determine if ironclad gunboats were under construction in Hamilton and if so, to destroy them. On November 2d, Foster left Washington with a force of approximately 5,000 men, including 21 pieces of artillery. He had sent a message to Commander Davenport to meet him in Williamston with a few gunboats and informed

Davenport that he would be joined by an Army transport in Plymouth prior to sailing. The purpose of this transport was to carry supplies and food for Foster's troops during their movement through the state. Furthermore, General Foster told Davenport that any of the Army transports available would be under the command of Commander Davenport for use as he needed them during this operation. On the morning of November 3d, the Army and Navy leaders met for the first of three coordination meetings to identify their movement and fire support plan. The plan included the following:

> One rocket or gun means: Our advance is here.
> Two rockets or guns means: Fire more to the right, we are advancing.
> Three rockets or guns means: Your shot fall short.
> Four rockets or guns means: You fire over.[45]

The next morning the joint forces departed Williamston for Hamilton. Neither force encountered resistance enroute to Hamilton with the exception of water obstacles, which the gunboats easily avoided. On the morning of the 4th, the gunboats anchored off Hamilton, North Carolina; and Foster decided to meet with Davenport again to further refine their plan. During the next two days of the maneuvers, General Foster required fire support ahead of the Union troops as they marched and he needed four pieces of artillery from the Navy. This was delineated in writing and the following written order was the outcome of this meeting:

> 1st. Two gunboats to go up the Roanoke, shelling the shores, firing blank shots (9 out of 10 shots) as far as possible, and continue firing at intervals all day to-morrow.
> 2nd. These same boats to fire for an hour or two on the following day and then return to Hamilton.
> 3rd. Commander Davenport to remain in Hamilton with his boats for six days, unless he hears from General Foster before, then to return to Plymouth.
> 4th. Commander Davenport to loan General Foster four pieces of artillery, with crews, for his expedition.[46]

During the days that followed, the expedition moved inland up the Roanoke River. Confederate forces were not encountered, and Commander

Davenport accomplished his mission determining that there were no vessels under construction at Hamilton. He was also able to conclude that ironclad boats could not be present upstream from Hamilton due to the narrow width of the Roanoke and the overhanging trees along the river. The Union gunboats often became entangled in the trees that overhung the narrow banks, finding navigation almost impossible. If their small gunboats could barely navigate the river, the heavy ironclad vessels which the South was thought to be constructing would not be able to traverse these waters. Upon return to Hamilton on November 7th, Foster and Davenport had their last meeting. As with the previous meetings, responsibilities were delineated and a significant addition was the signal that "Five guns in quick succession or five rockets mean: The enemy has interrupted our march, lay by to assist."[47] Although this as well as the previous signals were never necessary during this joint endeavor, the documented planning for its use was a milestone for the joint efforts in the sounds in 1862. Joint operations were becoming more organized with each expedition and took on a form that was founded in concrete, documented plans.

On December 2d General Foster requested that Commander Alexander Murray be assigned as the Senior Officer in the Sounds. Commander Murray had served as the commander of a flotilla of Army gunboats in the Peninsula campaign throughout the summer of 1862 and had recently been assigned to the sounds for extended duty. Foster had learned of Murray's competence through General Dix, whom Murray worked under in the James River Fleet. Admiral Lee felt he could honor this request since Murray was senior to Davenport and thus relegated Commander Davenport to the position of Murray's assistant. Murray would remain Senior Officer of the Sounds until his transfer in March, 1863.

In his continuing drive to paralyze the North Carolina transportation system, General Foster decided his next mission was to destroy the railroad bridge and tracks near Goldsboro, North Carolina. This effort required additional troops as well as several gunboats to provide gunfire support as the troops made their approach on the town. 2,200 troops were provided by General Dix from Brigadier General Wessell's brigade in Suffolk. From the Navy, Foster decided he wanted Commander Murray for this mission and requested that Murray meet Foster's forces in New Bern. Admiral Lee quickly complied and ordered Murray to cooperate in every way possible with Foster and his Army command.

On December 10th Foster provided Murray with his attack plan as well as the movement signals and gunfire support that he required from the Navy during the Goldsboro expedition. This plan delineated that the Navy would "make themselves heard through their armament at the time of [Foster's] attack"[48] on December 12th or 13th, and it prescribed the gun signals that the Army would use to indicate their advance position, movement, and whether the Navy shells were falling long or short of the Army position. He further indicated that the fitting out of the gunboats would be provided by the Army quartermasters but he did request that Murray use his own facilities as much as possible.[49]

Commander Murray forewarned General Foster that due to the restricted width and depth of the river, the gunboats might not be able to fully comply with Foster's wishes but the Navy would provide support as far up the river as possible. The naval forces chosen by Murray were his command ship Hetzel accompanied by the Delaware, Lockwood, Seymour, and Shawsheen. These gunboats were accompanied by five Army transports, the Ocean Wave, Wilson, and North State with one gun each and the Allison, and Port Royal, armed with two guns each; armed and manned by Navy personnel.

Murray's selection of vessels was the best choice of those based in New Bern at the time. All of the Navy gunboats were side-wheelers which were more maneuverable in shallow water and their mix of cannons, from 12-pounders to IX-inch guns, gave them a gun range from 1,000 yards for the 12-pounder to greater than 7,000 yards for the IX-inch gun. The official records do not address the characteristics of the Army transports but correspondence revealed that the North State was a stern-wheeler which enabled her to proceed far enough up the Neuse River to effectively act as a transport for casualties downstream from Kinston to New Bern as necessary.

While these preparations were taking place in New Bern, Foster also coordinated the assistance of Lieutenant Commander Flusser in a diversionary expedition up the Chowan River that occurred simultaneously with Foster's movement to Goldsboro. A memorandum of understanding was drafted and signed by both General Foster and Lieutenant Commander Flusser which delineated specific requirements and actions to be conducted by Flusser's gunboats. The memorandum stated that Flusser was to coordinate the operation with General Peck in Suffolk and there were to be one or two Navy gunboats on the expedition assisted by at least two Army gunboats. The Army vessels were to be under Flusser's command and piloted by naval pilots and all the vessels were to be operating in the upper Chowan from December 11th to the 19th.[50]

On December 9th, Flusser left for the operation in the Chowan with the side-wheel steamer Perry. On the morning of the 10th, gunfire was heard from the vicinity of Plymouth. Flusser immediately returned to assist the gunboat Southfield which was left in Plymouth to defend the town. By the end of the day, Southfield had been severely damaged and the town of Plymouth was estimated, by the Union forces, to be half destroyed.

Meanwhile, Peck's forces led by Colonel Samuel P. Spear of the Eleventh Pennsylvania Cavalry moved on Franklin without the Navy and effectively forced the Confederates west across the Blackwater. This skirmish continued as planned for the Army's forces, and provided the diversion needed for General Foster while he moved his troops toward Goldsboro.

As Colonel Spear's cavalry moved toward Franklin, Commander Murray's flotilla departed New Bern towards Goldsboro with the Army transports in the lead. The transports reconnoitered the river ahead of the main force, falling back into gun range of the heavier gunboats if enemy pickets were encountered. Due to the unusually low water, the Delaware ran aground shortly after departure and was unable to participate in this expedition. The rest of the Navy gunboats were only able to proceed 15 miles up the Neuse River due to the low water, therefore the Army transports proceeded to Kinston alone. The first encounter with the Confederates was on December 13th, two miles below Kinston. The narrow width of the river made it impossible for the transports to turn around so they returned fire as they backed down the river to escape the fire of the Confederate batteries. By sunset the gunfire ended and the transports anchored for the night. The following morning, the transports continued their transit to Kinston, finding the water so shallow that only the Allison could proceed to Kinston. As Foster's troops advanced along the shore, the transport Allison, under the command of a Navy gunner, provided a successful feint to the Confederates by simulating an attack from the river. This effort was commended by Foster as it caused a division of the Confederate forces, half in defense along the river, and the rest defending against the Army infantry approaching Kinston. With less opposition, Foster was able to overcome the confederates in Kinston and

during the next week, continue on to successes in White Hall and Goldsboro, returning to New Bern by December 20th.[51]

This final Neuse River operation of 1862 gave great credit to the Navy gunboats in the sounds. Admiral Lee's gunboats showed that they were flexible enough to adjust to the changing tactical circumstances encountered. While continuing to provide transportation and diversion operations in support of the Army on the Neuse River, the gunboats also provided gunfire support to the defense of Plymouth. By the end of the year, Joint operations had established a solid foundation in the sounds of North Carolina.

As the year came to a close, the Secretary of War and General Dix had realized the importance of the North Carolina campaign and General Order Number 214 was issued which established the Eighteenth Army Corps in North Carolina, placing Major General Foster in command. Furthermore, General Dix reinforced the diminishing Department of North Carolina with more than 11,000 troops from the Department of Virginia. These actions reconstituted Foster's command which had been depleted by regular attrition, war casualties, and transfers to the Department of Virginia when Burnside transferred. General Foster's command was prepared to confront the challenges that lie ahead.[52]

The joint forces that had moved into North Carolina since the beginning of the war had matured greatly as a team. Beginning late in 1861, General George McClellan realized that the extensive waterways of North Carolina would lend themselves greatly to a joint effort of warfare against the South. His feelings were shared by Assistant Secretary of the Navy, Gustavus Fox, who felt the two forces should be able to work together and once wrote, "I do not like to have the Army say that the Navy could not help them."[53] The idea of joint operations in the restricted

sounds, however, was not universally accepted by the senior naval officers in the sounds. Flag Officer Goldsborough had strong opinions towards the Army. Goldsborough was once asked by the Assistant Secretary of War whether he would be willing to place himself under the orders of General McClellan to which he immediately replied "No!". He further amplified that "there was no principle in war more fully established than that when military and naval forces acted together the commander of neither was to be subject to the orders of the other, and that he [Goldsborough] would never under any circumstances place himself under the orders of an officer of the army."[54]

When the joint forces first arrived in the sounds, planning of maneuvers was often conducted in an ad hoc manner. The missions in North Carolina were directed by Generals McClellan and Burnside, but the comprehensive planning for each of the operations was conducted without prior reconnaissance of the area of operations. Additionally, the planning process often occurred just before the joint forces embarked on the mission. This resulted in unsuitable assets being assigned to the mission and operational complications which resulted from the lack of prior reconnaissance. Knowledge of the depth and width of the rivers was a common deficiency as well as the impact of the weather on the tidal changes. Coordinated signals were not developed until late in the year which resulted in inaccurate gunfire support and potential fratricide incidents during the first half of the year. Furthermore, the planning was seemingly done due to the collocation of the forces when they assembled at the start of each mission. By December, with changes in the upper command structure, this had changed.

General Foster, having worked closely with the Navy on earlier missions, realized the value of close coordination. As such, once he

assumed command of the Department of North Carolina in July, advance planning became routine and signal coordination was documented. Admiral Lee had taken over the North Atlantic Blockading Squadron and his working relationship with the Army was well founded in his endeavors on the Mississippi River. By the end of 1862, the Army and Navy forces had succeeded in creating a relationship which would mature into a proficient, organized effort against the South.

Joint operations during 1862 also progressed significantly with respect to territorial expansion. The year began with movement into the sounds and gaining control of both Albemarle and Pamlico Sounds. Once the Union forces had seized Plymouth, Washington, and New Bern, the joint forces were able to advance inland along the Neuse, Pamlico, and Roanoke Rivers. Expeditions up these rivers were exploratory in nature. Neither the Navy nor the Army had conducted reconnaissance before movement into North Carolina to determine the hazards these rivers might present. By the end of 1862, the gunboats had ventured as far inland as Franklin, Virginia on the Chowan and Blackwater Rivers, Hamilton on the Roanoke River and Kinston on the Neuse River. The obstacles encountered, both natural and man made, had presented challenges never before confronted by the leaders in North Carolina; yet they were all overcome successfully. Control of the littoral in northeastern North Carolina was clearly dominated by the Union forces by the end of 1862.

CHAPTER 3

THE CONFEDERATE BUILDUP AND COUNTERATTACK IN NEW BERN, WASHINGTON, AND PLYMOUTH IN 1863

In January of 1863, Admiral Lee had fourteen vessels assigned to the Sounds of North Carolina squadron of the North Atlantic Blockading Squadron. Five were in New Bern, collocated with the Commander of the Sounds, Commander Alexander Murray, while two were located in Washington, North Carolina under the command of Lieutenant Richard T. Renshaw. Five more, commanded by Lieutenant Commander Charles W. Flusser, were located in Plymouth, while two steamed independently in guard positions off Hatteras and Ocracoke Inlets. Major General Foster, Commanding General of the Eighteenth Army Corps was stationed at the headquarters in New Bern and was accompanied by three infantry divisions commanded by Brigadier Generals Innis N. Palmer, Henry K. Wessells, Henry Prince, an artillery brigade commanded by Brigadier General James H. Ledlie and a cavalry regiment commanded by Colonel Simon H. Mix. Five cavalry companies and four infantry companies of General Wessells' First Division were located in Washington, North Carolina under the command of Major Walter G. Bartholomew, and one Brigade commanded by Colonel H. C. Lee was located in Plymouth. The remainder of General Foster's command were temporarily attached to the Department of the South in Beaufort, North Carolina.

The first joint activity to occur in North Carolina during 1863 was on January 30th. In that operation Lieutenant Commander Flusser, Captain of the USS Commodore Perry, sailed across Albemarle Sound from Plymouth to Hertford with fifty soldiers of the 27th Massachusetts

Infantry. Their objective was to conduct reconnaissance prior to a mission ordered by General Wessells. The official records imply that Brigadier General Wessells foresaw the advance of Confederate troops across Perquimans River as threatening to Plymouth. Therefore, he ordered the enemy pickets pushed back as far as possible and the destruction of two bridges across the Perquimans River. These actions closed an avenue of approach for the shipment of Confederate contraband from Norfolk to the southern extreme of the Chowan River. Prior to commencing this mission on February 1st, Colonel Francis L. Lee, commanding officer of the 27th Massachusetts, assumed command of the post in Washington from Major Bartholomew and met with Flusser to plan the attack. The following day they sailed to Hertford and landed 90 men, who moved on the town and destroyed the bridges. This uncelebrated success transpired without resistance and without difficulty, illustrating the importance of the advance planning that had become the norm in the sounds by 1863.[1]

By February, the Union stronghold in the sounds began to weaken. The Confederates were building up their forces around New Bern, Plymouth, and Washington and the Union Navy Department resisted sending additional gunboats to North Carolina due to the concentration of Union forces in Virginia. Lack of reinforcements weakened the North Carolina Union forces as the spring progressed and eventually gave the Confederates the opportunity to attack both New Bern and Washington.

During February, the Confederates began an extensive campaign to strengthen their forces by establishing pickets around Plymouth and Elizabeth City. Reinforcement was complemented by arming two Confederate paddle wheel steamers with cannons above Hamilton, and the construction of a floating battery approximately 15 miles above Hamilton on the Roanoke River. A deserter from the Confederate fort at Rainbow Bluffs on the

Roanoke arrived in Plymouth and reported that this floating battery had guns bigger than the IX-inch guns used on the Commodore Perry.[2]

As this Confederate buildup continued, the Union's naval forces weakened. The gunboats' hulls and boilers were in a vulnerable state of disrepair from continual use during the previous winter. Scale, a by-product of the boiling process, had built up on several of the vessels boilers making them unable to steam due to reduced diameter of the steam piping. Scale, unfortunately, was unavoidable because of the state of steam propulsion knowledge at the time. Repair required shutting down the boilers, disassembling and mechanically cleaning them by scraping the scale from the piping. It was often necessary to actually replace the entire boiler, a process that took more than a month. In February 1863 the Union did not have the capability to conduct this kind of repair work in the sounds. As a result, the vessels had to leave their station and move to a Union shipyard in Norfolk, Baltimore, or Philadelphia. This maintenance deficiency left the sounds more vulnerable and subsequently led to the development of a ship repair facility in Washington, North Carolina.

Lieutenant Renshaw, convinced of the need for a local ship repair facility, requested permission of Admiral Lee to establish such a facility. Since Washington had a foundry and blacksmith shop with a capable blacksmith located in town, it was a logical place to establish the facility. By March, Admiral Lee had approved the concept. In addition to providing for the necessary descaling operations, Admiral Lee also began an acquisition program to procure additional boiler iron to repair the vessels as needed. Renshaw was directed to use the boiler iron to add protective shielding around the gunboats when each came to the Washington facility for repair. Shielding was built up as a rifle screen

around the gunboat batteries, pilot houses and enginerooms. Extra boilers from Washington's buildings were adapted and made available for shipboard use as replacements.

Because Admiral Lee realized the seriousness of the continual Confederate build up, he ordered Lieutenant Commander Flusser and Commander Murray to exercise the officers and crew of their gunboats in gunfire support in Plymouth and Elizabeth City respectively, for three to six hours per day. The officers and men were to emphasize the training of both "great guns and small arms".[3] Furthermore, Flusser was ordered to operate all vessels in Plymouth at peak readiness at all times. To meet this challenge, the boilers were kept continually steaming, their anchor cables kept unshackled, and the vessels remained buoyed out in order to reduce vulnerability next to the pier. Lee also sent notice to the USS Whitehead a small, maneuverable screw steamer with a IX-inch gun, to move from the Chesapeake Bay to Plymouth and join the Southfield and Underwriter stationed there. The latter two vessels were armed with a 100-pounder rifled gun and an VIII-inch gun respectively. Due to their size their usefulness up the Roanoke River was limited but their fire power was sufficient to protect the forces in Plymouth. Although not specifically addressed in the official records, Admiral Lee seemed to have considered the depth restriction of the water in the Roanoke River when assigning the Whitehead to this duty because other larger, more easily, and quickly accessible vessels were not chosen first.

By mid February, Admiral Lee was more actively involved in the defense of North Carolina than he had been to date. The Confederates continued to close on the Union forces in New Bern, Washington, and Plymouth but the point of their initial attack remained unclear. Lee warned Murray that he expected the main effort to be in Plymouth or New

Bern and that Murray should make the defense of Plymouth his priority. The reason for this order is not explained. However, most of Foster's troops were still in New Bern and Lee may have presumed Foster was capable of defending the city without reinforcements from Murray's gunboats in New Bern.

Lee's concept of operations for meeting the heightened Confederate challenge was based on the destruction of all the ironclads in the rivers of North Carolina. The pursuit of the ironclads was planned to coincide with the spring high tides. These tides would make the river more easily accessible to the gunboats.

With this concept in mind, Admiral Lee ordered Flusser to destroy all the Confederate ironclad vessels that were found on the Neuse, Tar, and Roanoke Rivers. Lee further coordinated with General Foster the assignment of Army troops to the gunboats to act as sharpshooters, and made the assignment of eight additional Army gunboats from Virginia to the sounds (see Table 3). Conceptually, the sharpshooters would provide counter-musket fire from the gunboats when faced with Confederate small arms fire from the river banks.

TABLE 3

ARMY VESSELS REASSIGNED TO THE SOUNDS IN JANUARY 1863

Army Steamers	Army Tugs
Swan	Lillie
Star	Dictator
Henry Burden	Chowan
C. W. Thomas	
W. Whilden	

By the end of February, General James Longstreet, Commanding General of the Confederate Departments of Virginia and North Carolina, realized "that there was a goodly supply of produce along the east coast of Virginia and North Carolina, inside the military lines of the Federal forces."[4] In order to move these supplies to the Confederate outposts, Longstreet ordered Confederate Major General Daniel H. Hill to advance his divisions in North Carolina on New Bern and Washington and hold the Union forces in position long enough for Confederate trains to move supplies to the west. Hill saw his opportunity to move east when Longstreet moved east in Virginia towards Suffolk. The overall concept of the operation was to "make a diversion upon New Bern and surprise the [Union] garrison at Washington."[5] Despite careful planning, severe weather hindered Confederate movement allowing Union forces to discover the advancement and reinforce their defensive posture.

During the first week of March, as expected, the Confederate forces made final preparations for their attack on New Bern and Washington. Before dawn on March 14th, approximately 3,000 troops and eighteen field pieces of the Confederate Army attacked Fort Anderson, located to the north and across the river from New Bern. Fort Anderson was defended by only 300 Union Army soldiers. Fortunately, prior to this skirmish, Murray and Foster had coordinated fire signals that would indicate the fort was under attack. Even before Murray became aware of the signals that March morning, the well trained crew of the Hunchback saw the alarm signal and immediately returned fire with the 100-pounder cannon. During the skirmish, the Hunchback was forced to maneuver in an unsafe area, running aground in the process. Even though hard aground, she continued to provide gunfire support until the Confederate forces had ceased firing. Upon cease fire, the Confederates requested the fort be

surrendered or they would open fire again. Thirty minutes later the shelling recommenced. By this time the gunboat Hetzel and Shawsheen, despite undergoing boiler and rudder repairs respectively, were towed into firing position by tugs and began shelling the enemy with their IX-inch gun and 20-pounder rifles. Their determined use of fire power, despite their lack of mobility, finally caused the retreat of the enemy. The fortuitous success of the Union in this instance was due primarily to the collocation of enough tugs to tow the Hetzel and Shawsheen into defensive position. There is no indication that this towing maneuver was part of any preplanned defensive maneuver but it was very successful. In fact, with only the Hunchback and an armed schooner in the river capable of getting under way, the Union's fire power was severely limited. These mobility limitations would have certainly impacted the outcome had the Hetzel and Shawsheen not been able to return fire on the enemy.

Although Murray was obviously concerned about the likelihood of an attack on New Bern, he still made a serious judgement error when he sent the Lockwood and Ceres on a reconnaissance mission up the Pungo River despite the Hetzel and Shawsheen being disabled. Luckily, quick thinking resulted in the use of available tugs to maximize the use of other available resources.[6]

The battle at New Bern highlighted the usual distrust and misunderstanding that the sister services had for one another. The Navy complained that four days prior to the attack, General Foster had withdrawn four Army gunboats for duty in Pamlico Sound because he did not detect an enemy threat against New Bern. Furthermore, the Army's forces during the attack were said to be "on-lookers" and made no movement to assist. Commander Murray complained that "General Foster is really ignorant about gunboat matters"[7] and that he was sure an "imperfect system

of reconnaissance on the part of the Army"[8] was in part, the reason the Confederates were able to surprise the Union forces in New Bern. No matter what their superficial opinions were toward blame, the overall defence of New Bern was a success and the sister services continued to work together as they had in the past.

After the battle in New Bern, the Assistant Secretary of the Navy, Gustavus Fox, queried Admiral Lee as to whether or not he was going to keep Murray in command of the sounds permanently. Fox further added that if Lee desired to keep Murray in command he should detach Davenport from duty in the sounds. Lee evidently felt compelled to act on this request. Murray's appointment to command had been considered temporary due to his seniority to Davenport when Murray reported to the sounds at the request of General Foster for the Goldsboro expedition in December, 1862. On March 30th, Admiral Lee ordered Commander Davenport to resume the position of Senior Officer in the Sounds and Murray was sent to Washington, North Carolina where Confederate forces were preparing for an offensive maneuver.

Having created the successful diversion in New Bern, General Hill, Confederate Commander of the Department of North Carolina, commenced his most aggressive campaign of 1863, against Washington, North Carolina. Artillery positions were established on the northern and southern banks of the Tar River, seven miles south of the town, effectively cutting off Union lines of communications between Washington and New Bern. Another Confederate battery was established two miles south of town, on the southern bank at Rodman's Point (see Figure 5). General Robert E. Lee advised against implementing the Washington offensive operation because he realized the threat which Union joint operations posed. Lee knew that reinforcements could be brought to Washington via gunboat and if Union

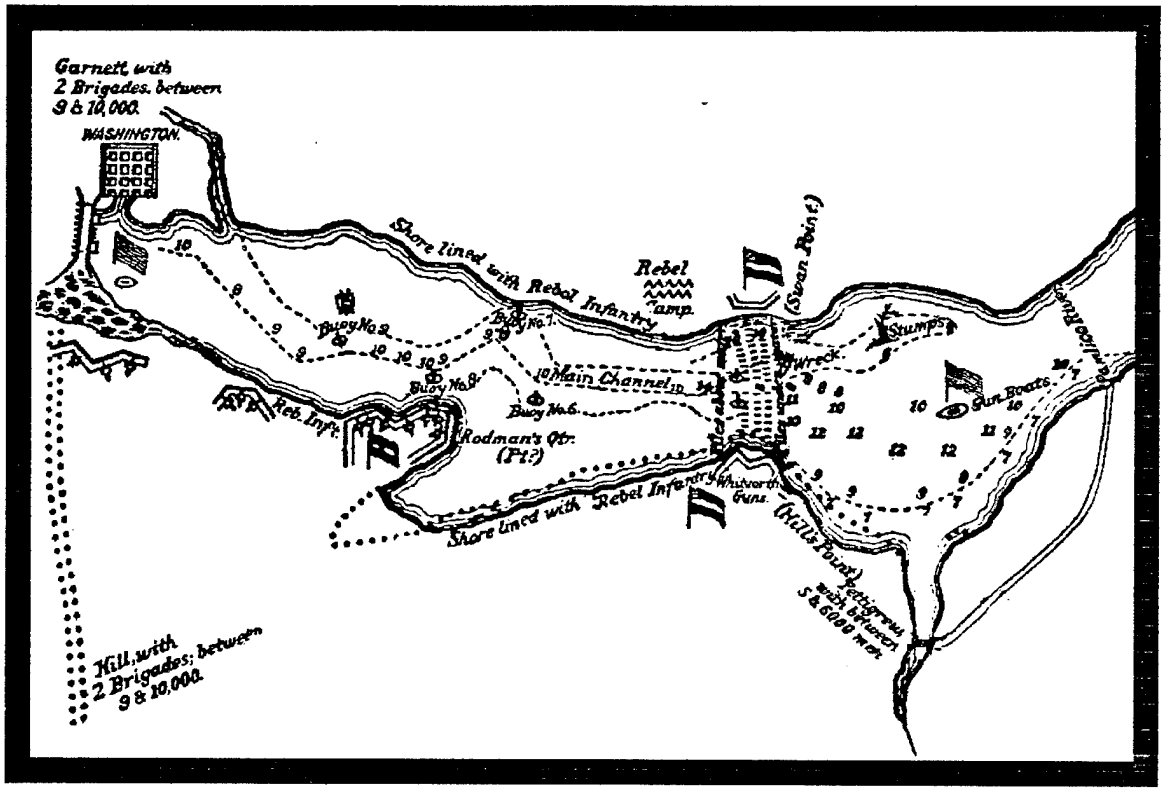


Figure 5. Location of Confederate forces during siege of Washington. Source: Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1899) Series I, Vol. 8, 674.

forces were successful in bypassing the Confederate blockade, the Confederate attacking force could be defeated. With this in mind, the Confederate forces moved into the abandoned battery south of the city at Hill's Point thus effectively defending against an approach from the water. With their preparations complete, the Confederate forces sent a message into Washington under a flag of truce to warn the local inhabitants to clear the town of all women and children. The attack began the following morning.

On the morning of March 30th, the only three gunboats in Washington were the Commodore Hull, the Louisiana, and the Army gunboat Eagle. Once underway, the three gunboats maneuvered to a position south

of town to protect the high ground surrounding Washington. Other Union gunboats were still protecting New Bern as the Confederacy had hoped. In addition to the small complement of defensive forces present, the Union was at a stark disadvantage because of the unfortunate weather and tidal conditions present that day. High easterly winds had caused unusually low tides which hampered all counter-attacking attempts made by the gunboats in the Pamlico, Roanoke, and Tar Rivers. During the evening of the 30th, the Hull overheard howitzer fire from the vicinity of Rodman's Point. Knowing that two companies of the Forty-fourth Massachusett's Volunteers under the command of Captain Charles A. Lyon were encamped there, the Hull immediately went to their support. With the support of the Hull, the two Union companies were able to safely evacuate by flatboat at nightfall. Early the following morning, Captain Lyon's troops attempted a landing to recapture Rodman's Point. Confederates again began intense howitzer fire. The Hull went immediately to their aid again and provided counter-fire, scattering the Confederates while Lyon's troops landed. Although Rodman's Point battery was not recaptured, the mutual coordination illustrated in this landing represents the multi-service support necessary to prevent severe losses during joint operations in riverine warfare.[9]

By April 1st the unusually low tides continued to impact the Union's attempt to defend Washington. During maneuvers to provide counter-battery fire against Rodman's Point on the 1st, the Commodore Hull ran aground between two Confederate batteries who shelled the Union gunboat throughout the day. The Louisiana fought the same low tides and was barely able to maneuver in the river to unmask her batteries. Before the day was over both vessels had expended all of their ammunition and were in imminent risk of destruction. While aground, the Hull's commanding officer, knowing he would soon run out of ammunition,

dispatched his launch toward New Bern with a message asking Commander Davenport to send ammunition as soon as possible. Hearing this information, Davenport ordered all available gunboats to depart Plymouth and New Bern in the defense of Washington.[10]

Unfortunately, by the time the gunboats Hunchback, Ceres, Lockwood, and Granite arrived at the head of the Pamlico River, they were unable to approach Washington because of the Confederate defense. The Confederates, in establishing a strong defense at Hill's and Rodman's Points, had removed the buoys previously dropped by Union forces marking the river obstacles. Additional defenses included emplaced howitzers in a corn field along the south side of the river.

General Foster decided to evaluate his defense more closely and moved to Washington, leaving Brigadier General Innis N. Palmer in command of the Union Army forces in New Bern. The Southfield, Whitehead, and Seymour were dispatched from Plymouth and arrived south of Hill's Point on April 3d. Due to the concentration of Confederate forces at Hill's Point, however, these gunboats were unable to approach any closer than seven miles from Washington. With the removal of the vessels from Plymouth to assist Washington, Admiral Lee informed Gideon Welles that, in his opinion, Union forces were spread too thin; and that Plymouth was now in jeopardy as well. Lee later articulated his critical opinion when he stated that the Army "should cease the impolicy of occupying so many detached and weak positions, and relying on what were called ferryboats in New York and gunboats here to make such positions tenable."[11]

By April 2d, the gunboats and Army forces were in desperate need of ammunition and four more gunboats, the Hunchback, Shawsheen, Hetzel, and Ceres, had run aground. Supplying the Union land forces had become a critical problem because the necessary transport vessels could not

navigate past the Confederate shelling from Hill's Point to replenish the forces in Washington. In desperation, small schooners were outfitted with as much ammunition as possible and were run past Hill's and Rodman's Points at night, successfully avoiding the Confederate shelling. However, the river remained full of the threat of unmarked obstacles. To remedy this Davenport ordered the Ceres to place buoys in the river each night to guide these schooners up the river safely.

On April 4th the Ceres arrived in Washington with additional ammunition and anchored two miles below the battery at Rodman's Point. Because her pilot had determined the river to be too dangerously narrow to navigate at night, she could go no further. The following morning the Ceres heaved anchor and her captain heroically ran her through the batteries, arriving at the wharf in Washington by 12:30 P.M.. Before leaving Washington, the Ceres embarked a detachment of troops from the Forty-fourth Massachusetts Regimental Volunteers with the intention of landing the troops and recapturing Rodman's Point. Once underway, she came under heavy fire from the Confederate artillery at Rodman's Point and ran aground while attempting to maneuver in the river. Excessive numbers of troops onboard made maneuvering the Ceres to return fire at the Confederates an impossibility. Commander Renshaw, stationed on the Louisiana became aware of this dilemma and immediately dispatched all available small boats to Ceres' assistance. Once the Army's troops were removed from the Ceres, she was able to maneuver appropriately, fire at the battery, and eventually cause Confederate withdrawal from the point by nightfall.[12]

During the following week, several Union gunboats made return trips to Roanoke Island obtaining ammunition and coal to resupply Washington. These supplies were often transported in captured Confederate

schooners loaded and towed up the Pamlico River by the gunboats. From there, schooners and gunboat launches with shallower draft ran through the blockade of Hill's and Rodman's Points successfully resupplying the remaining gunboats and Army forces in Washington.

In an attempt to wear down the Union forces in a battle of attrition, the Confederate Army continued to fortify the area around Washington. By April 10th, four Confederate batteries had been constructed in firing range of Washington. Daily shelling of the city and the gunboats continued. Union forces responded with counter-battery fire from one or more of the Union gunboats, effectively silencing the Confederate artillery for yet another day. The counter-battery fire was often effective in damaging the Confederate batteries during the day, only to have the battery reconstructed during the following night. By April 15th, two more batteries had been constructed and the Confederate infantry numbers were estimated by General Foster to be at least 15,000. Despite the heavy Confederate build up, Foster reported that he could occupy Washington safely for the Union, completing an evacuation of the city only if the Confederates launched a full force attack. Commander Davenport disagreed.[13] Davenport's opinion was that the Union had not accomplished its mission in Washington and therefore Foster, having delayed the evacuation too long, was no longer able to evacuate because of the extensive Confederate fortifications. Furthermore, Davenport believed that Plymouth should be evacuated immediately because the Confederate movement into Washington would imperil Plymouth. Although not directly stated in the official records, it appears that the Army had hoped to use the naval gunboats to assist in evacuating the town if necessary. To facilitate communications during the evacuation, the naval support vessels were to remain within sight of Washington allowing the Army to signal the

Navy gunboats as necessary. Unfortunately, the strategic placement of the Confederate batteries at Hill's Point made this impossible.[14]

Communications during the siege of Washington were cumbersome as noted above, due to the division of the river by the Confederate battery at Hill's Point and the lack of Union Army gunboats to assist the communication effort. Davenport's response was to request shallow draft reinforcements from Lee to act as messenger vessels. The Union Navy had been relying entirely on the Army gunboats for running messages between Washington and New Bern but the current shortage of Army vessels precluded the continuation of this communication function. Furthermore, unlike the operations during December, 1862, Foster had not established specific gun and smoke signals allowing coordination of gunfire between the Army troops and the Navy gunboats.[15]

On April 15th, finally convinced that Washington would fall, Foster proceeded back to New Bern, and on the 16th ordered the evacuation of Plymouth. However, not more than a day later, Foster rescinded this order prior to its implementation because of a series of unforeseen events that allowed the Union to hold Washington and Plymouth despite the odds.

The surprising events unfolded rapidly. On April 16th, Admiral Lee, realizing the importance of unity of command within the gunboats of the Pamlico River, directed Lieutenant Commander Flusser to assume the position of Commander of Naval Operations at Washington. Flusser was thereby ordered to "concert with General Naglee a joint attack by sea and land to raise the blockade of Washington . . . [and] have exact signals concerted with General Naglee, so as to cease or renew [his] firing at the right time."[16] In addition, Lee forwarded 300 rounds of ammunition and 150 rounds for each broadside gun.

During the next 24 hours, the Commodore Hull, Ceres, Louisiana, and Eagle landed troops at Rodman's Point and using gunfire support, overthrew the Confederates in the Rodman's point battery. Additionally, to the surprise and delight of the Union Army, the remaining enemy forces in Washington withdrew prior to the Union forces' advance.

Unknown to the Union commanders, the Confederate commanders had decided to withdraw the forces in order to reinforce Kinston and Wilmington, North Carolina. The Confederate leader, General Hill, reported that the reason the Confederate Army withdrew was because the Union gunboats were able to run the Confederate blockade and reinforce Washington. Hill was no longer able to delay the Union Army from advancing on the Confederate forces that were moving supplies westward. With the Union's recapture of the batteries along the river and development of a way to resupply Washington through the use of small craft, Hill was no longer able to attrite the Union forces. Analysis of correspondence between Generals Lee, Longstreet, and Hill provides evidence that Longstreet's initial vision did not include the capture of Washington. He merely wanted to weaken the Federal forces, hold them in eastern North Carolina, and to allow transportation of supplies out of the eastern half of the state by the Confederate forces. Hill's intention is illustrated when he wrote, "For the last four weeks I have been around Washington and New Bern with three objectives in view - to harass the Yankees, to get our supplies from the low country, and to make a diversion in your favor."[17] The diversion referred to in this letter related to creating a diversion for General Beauregard while he was in Charleston, South Carolina. Washington remained under Union control, and the Union joint formation used the opportunity to reorganize in preparation for further defense of Plymouth and New Bern.

By April 17th, General Foster's command had experienced several organizational changes to meet the command needs of the defense in Washington, much like a joint task force is developed today. In order to reestablish XVIII Corps into a manageable command, Foster ordered the reorganization of the Union troops into their prebattle organizational structure including original designations. This reorganization created three divisions under General Foster; First Division commanded by Brigadier General Palmer, Second Division commanded by Brigadier General Wessells, and Fifth Division led by Brigadier General Prince. Generals Foster, Palmer, and Prince located their command posts in the vicinity of New Bern, and General Wessells moved to command the troops in Plymouth. Due to the command position assumed by Palmer in the following months, he developed a close working relationship with the naval commanders.

General Palmer, a graduate of the Military Academy class of 1846, served for two years in the Mexican War after graduation followed by duty in the 2nd Cavalry under Robert E. Lee. At the outbreak of the Civil War Palmer was in command of the Regular Army cavalry at first Bull Run. In September 1861 he was promoted to Brigadier General of volunteers and served in the Peninsular campaign at Williamsburg, Glendale and Malvern Hill until his transfer to North Carolina. There he assumed command of General Foster's First Division. In July 1863 Palmer temporarily assumed command of XVIII Corps when General Foster relinquished it to assume command of the Department of Virginia. Palmer remained in command of XVIII Corps until relieved by Major General Peck on August 14th. At that time General Palmer assumed the position of Commanding General of the defenses of New Bern.[18]

Brigadier General Prince, an infantry officer, graduated from West Point in 1835, and fought in the Florida wars against the Seminole

Indians, the Mexican War, and served on the Utah Expedition. General Prince was promoted to Brigadier General in April 1862, and was assigned to the II Army of Virginia until his capture at Cedar Mountain by the Confederates in August 1862. In December he was released, and was assigned to command General Foster's Fifth Division.[19]

Brigadier Henry W. Wessells also served in the Florida Wars against the Seminole Indians, and the Mexican War after graduating from West Point in 1833. During the first 17 years of his career he served in Florida, on the Pacific coast, in the Dakotas, and in Kansas. At the outbreak of the Civil War he commanded the 8th Kansas Infantry on the Missouri border. In March of 1862 Wessells was transferred to the Army of the Potomac where he served until transferred in December 1862 to XVIII Corps in North Carolina. While in XVIII Corps he commanded 1st Division, 4th Division and the District of the Albemarle.[20]

As the Army reorganized, the naval forces repositioned to defend against possible offensive maneuvers against Plymouth and New Bern. The Louisiana, Commodore Hull, and Ceres remained in Washington and were placed under the command of Commander Renshaw who had relieved Lieutenant Commander Flusser. The gunboats that remained in Washington were those most damaged during the siege of Washington and required repairs at the ship repair facility. Flusser moved to Plymouth to reorganize the Union naval forces stationed there and took the Southfield, Valley City, Whitehead, and Underwriter with him because their drafts were too deep to maneuver in the Pamlico River near Washington. While in Plymouth Flusser developed a good working relationship with General Wessells which proved to be beneficial in the future joint effort. The Hunchback, Seymour, and Lockwood then joined the Miami, already in New Bern. One of those

reassigned to New Bern, the Seymour, only remained there until April 20th when she departed for Hampton Roads for repairs.[21]

Realizing the limitations that underwater obstacles and shallow water placed on the gunboats during the siege of Washington, General Foster placed a higher priority on ensuring the ability to navigate the rivers in his North Carolina command. At Foster's request, Davenport placed buoys along the channels of the Neuse River and ordered Commander Renshaw to remove all the obstacles in Pamlico River. Furthermore, most of the operations conducted during the rest of 1863 were preceded by reconnaissance missions to determine both the river conditions as well as the state and size of the forces that might be encountered.

In May, Confederate forces captured two mail boats and took them to Franklin. General Wessells sent 150 infantrymen in an Army transport and two Navy gunboats under the command of Lieutenant Commander Flusser on an expedition to recover these vessels. As the gunboats progressed up the Blackwater River they found the depth to be a mere six feet, which ceased their advance. Of further concern to Flusser were narrow bridge abutments which could easily be used to trap the gunboats up stream by lodging trees between the abutments, across the river. With these in mind, Flusser headed back down stream where the Union gunboats anchored in the Meherrin River near Murfreesboro and awaited the return of the Army infantry. The Meherrin is a narrow tributary with high bluffs that flows southeast from Virginia to the headwaters of the Chowan River. Transiting this river required landing the Army soldiers along the banks and having them serve as pickets to protect the gunboats from Confederate attack as they advanced up the river. The high bluffs denied the naval vessels the ability to fire back with cannon fire if fired upon due to the limited elevation ability of the cannons.[22]

While anchored in the Meherrin, Flusser took a detachment of soldiers ashore for further reconnaissance of Murfreesboro. There they found a vast quantity of unguarded stores and ammunition belonging to the Confederate troops who had moved from Murfreesboro to Franklin to repulse the Union advance. After destroying most of the Confederate cache and capturing their ammunition, Flusser moved the detachment back to the vessels and weighed anchor for Plymouth. The intelligence gained at Murfreesboro benefited the Union during the next operation up the Chowan River in July.

Early in May the Army schooners Sea Bird and Mary Eliza were apprehended near Wilkinson's Point on the Neuse River and burned by Confederate soldiers. By the end of May General Foster executed his plan to move a detachment of troops to the chokepoint at Wilkinson's Point with Army transports. Foster's soldiers were to erect batteries along the river to prevent future apprehension of Army vessels. At the same time Davenport ordered the Brinker, Ceres and Shawsheen to get underway and cover the landing force at Wilkinson's Point. While enroute the gunboats captured and destroyed several Confederate schooners but did not encounter any enemy resistance. Within three days, Foster realized that fortifying Wilkinson's Point was unsuitable for reasons the official records do not stipulate and the Army troops were withdrawn. Davenport and Foster jointly recognized the vulnerability of vessels in this chokepoint and agreed that the Navy would keep one gunboat near that point at all times to protect future small boat traffic.[23]

At the end of May, Davenport had an extensive conference with Foster pertaining to the obstructions in the rivers. Again, Foster requested that all known obstacles be removed or at least marked. The focus of this request was the sunken Confederate vessels in the Neuse

River off New Bern. The controversy of whether they were abandoned property or war prizes created a delay in removing them. If considered abandoned property, the Treasury Department would be responsible for removal of the vessels. If regarded as a war prize, the naval forces could remove them. Eventually, Admiral Lee supported the war prize position and authorized the refloating of these obstructions by the Navy. After their recovery, some were towed to Plymouth later in the year and sunk again as strategic obstructions to channelize Confederate forces in the Roanoke River.[24]

By the end of June Davenport was frustrated because he felt the Navy's primary mission of patrolling the sounds was going unfulfilled. General Wessells was requiring the gunboats in Plymouth to remain in port as protection for the Army despite their former designed purpose. Wessells eventually agreed to let all the vessels except the Miami and the Southfield leave port on patrols. He wanted the gunboats to remain behind for the protection afforded by the extensive fire power of their 100-pounder and IX-inch guns. The rest of the vessels were then permitted to conduct contraband suppression operations in the sounds.[25]

During July General Foster concentrated his efforts on the interdiction of the Wilmington and Weldon Railroad, a critical rail supply line from Wilmington on the southeast coast of North Carolina through Goldsboro to Weldon on the Virginia border. The Wilmington and Weldon Railroad also included a major extension called the Atlantic and North Carolina Railroad that extended from Goldsboro to Kinston where it crossed the Neuse on its way to New Bern. On July 5th a joint deception operation was conducted by General Wessells and Lieutenant Commander Flusser out of Plymouth. Wessells coordinated transporting two regiments of infantry in the Navy gunboats and advancing on Williamston, a small town 20 miles

inland from Plymouth, up the Roanoke River. The amphibious force was complemented by another infantry force proceeding on foot toward Jamesville, 12 miles inland from Plymouth, also on the Roanoke River. These two Army detachments were to converge on Gardner's Bridge, a point between the two axis of approach, destroy the bridge over the Roanoke River, and rout the enemy from that area. At the same time, additional troops were to leave Plymouth undetected and attack the Weldon railroad.

The overall distraction operation failed because the gunboats carrying the infantry were unable to arrive at Williamston in time to effectively attack Gardner's Bridge from the rear. The gunboats' tardiness was due to stronger than expected current; a consequence of the poor hydrographic information available and insufficient reconnaissance prior to the operation. The Navy gunboats were, however, able to shell the town of Williamston, land the infantry and force the Confederates from the town despite their inability to converge on Gardner's Bridge. Although an overall failure, the Navy gunboats and the Army troops aboard the gunboats were able to effectively conduct their portion of the joint operation in Williamston.

By mid July Lieutenant Commander Flusser became aware of an armed steamer and a floating battery that were being constructed 40 miles northwest of Plymouth at Edward's Ferry, North Carolina. These vessels would be a serious threat to the Union forces in Plymouth if allowed to launch and proceed down the Roanoke River. Davenport also realized the severity of this threat and commenced a crusade to convince General Foster that this was just as important to the Army as it was to the Navy. Furthermore, the Navy would need the help of the Army to destroy this threat as Edward's Ferry was inaccessible by the gunboats. General Foster, having other priorities, did not make Flusser's concerns an

immediate priority. The General was in the process of assuming command of the Department of Virginia in addition to the position which he already held as Commanding General of the Department of North Carolina. These multiple responsibilities were the result of General Order number 217 in which, by order of the President of the United States, the Departments of Virginia and North Carolina were consolidated into one command. With his broadened span of control, General Foster appointed Brigadier General Innis N. Palmer as his temporary successor to command XVIII Army Corps in New Bern. Palmer held this position until August 14th when he was relieved by Major General John J. Peck.[26]

Major General John J. Peck, an artillery officer who graduated from West Point in 1843, served in the Mexican War, and on the frontier until he resigned in 1853. After resignation he worked in railroading, banking, and was twice nominated for Congress. At the outbreak of the Civil War, President Lincoln appointed him a brigadier general of volunteers and assigned him to the Army of the Potomac. During the Peninsular campaign, he "commanded all the Union troops in Virginia south of the James River"[27] and eventually became the Commanding General of the defenses at Suffolk where he was seriously wounded. Upon recovery from his wounds he was assigned to relieve General Palmer of command of XVIII Corps in North Carolina.[28]

During the last week of July, Flusser was again ordered to proceed up the Chowan River on a joint expedition to Winton. General Foster had conceived a plan to transport troops up to Winton, land them, and have them march to Weldon destroying the Seaboard and Roanoke Railroad bridge located there. Flusser knew the Army alone would have to conduct this attack as the Navy vessels were unable to proceed far enough up the Roanoke River. However, using intelligence collected in the Meherrin

River in May, Flusser decided that the Navy gunboats could support the Army in another way. Initially the gunboats would take the infantry and cavalry detachments up the Chowan River as far as possible, land them, and then return to the Meherrin River. Once in the Meherrin, the gunboats proceeded upstream to Murfreesboro and destroyed the railway bridge that crossed the Meherrin River there. Flusser's plan prevented the Confederate forces in Franklin, Virginia from using the railway to surround the Union troops and attack their rear area.[29]

During August Flusser's ever present fear of the impending ironclad threat on the Roanoke River continued to grow. Unfortunately, General Foster had yet to display any concern for the threat the ironclad posed to the Union fortifications in Plymouth, Edenton and Elizabeth City. In contrast, Foster notified Admiral Lee that half of the gunboats in the sounds could be reassigned elsewhere. Foster felt that all of the coastal towns of North Carolina had been fortified enough to defend against a Confederate attack. Admiral Lee, on the other hand, aware of the floating battery threat, urged Flusser to impress upon General Wessells the gravity of this threat. Although the official records do not stipulate that Lee was becoming impatient with Foster, he did choose to circumvent Foster and communicate through the Army's senior officer in Plymouth. This indicates that Lee realized Foster's lack of concern for the destruction potential of the ironclad battery. Furthermore he requested the assistance of Major General John J. Peck, Commanding General, District of North Carolina, the immediate subordinate of General Foster, in the destruction of this ironclad battery. The Navy, well aware that the lower than normal water level in the Roanoke River would prohibit the Union gunboats from proceeding far enough up the river to effectively attack Edward's Ferry, recognized that a successful operation must be a joint effort.

In view of the Army's suggestion that half of the gunboats depart the sounds, Admiral Lee proposed to the Secretary of the Navy that the Commodore Perry, Hunchback, Lockwood, Ceres, and Shawsheen be sent to shipyards in Norfolk and Baltimore for long awaited repairs. Upon their return to the sounds, six others were to be dispatched for depot level repair in the Chesapeake Bay region, and ultimately be reassigned to commands other than in North Carolina. The proposed reassignment would leave a force of eight naval gunboats protecting the sounds and coastal towns of North Carolina. One boat would be required to remain in New Bern, Washington, and Plymouth at all times while the others would patrol the sounds. With this plan accepted by Secretary Welles, Lee ordered Commander Davenport to carry it out on September 3d. Lee was apparently comfortable suggesting this since the vessels he designated to depart the sounds first were all collocated in New Bern with the Army's heaviest defenses. Also, the plan did leave the Hetzel in New Bern if defense from the water was required. Additionally, Southfield, the largest gunboat in the sounds, as well as Whitehead and Underwriter were located in Plymouth providing the Army's forces there with a combined naval gunfire force of four IX-inch cannons, and one VIII-inch, one 80-pounder and one 100-pounder cannon in the event that the Confederate's new ironclad advanced on Plymouth.[30]

By the end of August Lieutenant Commander Flusser had met with General Peck in Plymouth to plan an offensive maneuver against Edward's Ferry and the newly constructed ironclad floating battery. Although General Peck had been convinced of the necessity to conduct the joint operation, he did not take action toward a joint venture until the Secretary of War ordered him to do so.

By September 15th the Army had not yet taken steps to conduct a joint operation up the Roanoke River so Gideon Welles, the Secretary of the Navy, became involved. After a meeting with the Secretary of War, Edwin Stanton, a letter was drafted to General Foster ordering him to take the necessary actions to prevent the sounds from falling into Confederate hands. Foster had finally been forced to take action against the ironclad threat. Meanwhile, Admiral Lee ordered Flusser to report the depth and width of the channels up the Roanoke River and to consult with the Army as to where to set up defenses.[31]

By November Flusser reported the results of his reconnaissance. The current in the Roanoke River was too strong to place torpedoes effectively as floating driftwood would set off the explosive devices. The only way to defeat the ironclad would be with a system of joint defenses which channelized the enemy through the use of sunken vessels and piles driven into the river bottom enabling effective shelling from both gunboats and shore batteries. Foster's chief engineer had been reviewing the Roanoke River at the same time and concluded that a sunken hulk upstream from Plymouth could force the enemy vessels closer to Fort Gray where they could be engaged before they reached the town of Plymouth. Additionally, a 200-pounder Parrott cannon could be placed in the center of town to provide last resort defense. By the end of the month both the Navy and the Army were actively working together on the development of this plan accepted by both General Foster and Admiral Lee. Meanwhile, the senior leadership of the Army experienced a change.

On November 11th Major General Benjamin F. Butler relieved Major General Foster as Commanding General of the Departments of Virginia and North Carolina. Foster then moved inland to participate in operations in Knoxville and relieved General Burnside of the Department of the Ohio.

General Butler, an aggressive lawyer and politician before the outbreak of the Civil War, earned the rank of Brigadier General of the Massachusetts militia at the start of the war, and took command of the District of Annapolis. In August of 1861 he took part in the capture of Forts Hatteras and Clark in North Carolina, and eventually moved to New Orleans in 1862, where he was appointed the military governor. In New Orleans Butler's conduct was said to be controversial, and he was eventually declared an outlaw by President Jefferson Davis. In December of 1863 Butler was removed from office in New Orleans and ordered to relieve General Foster.[32]

By mid-December a light vessel and two hulks had been sent to Plymouth, and were sunk in the Roanoke as planned. Butler, having agreed with the plan, ensured a 200-pounder was sent to Plymouth though the Army did not have any gun carriages in their inventory to support this cannon. General Butler quickly realized the importance of the Army's relationship with the Navy because the Navy possessed an XI-inch gun carriage that was easily modified to fit the 200-pounder Parrott. The Navy sent the carriage to Plymouth averting a major gap in the defense of Plymouth.[33]

On December 26th the Confederates exchanged fire with the Union forces in an insignificant skirmish on the outskirts of Plymouth. There are no official records of this clash except that gun fire was exchanged. Union leaders believed that the Confederate forces confronted were conducting a picket force operation for the growing number of Confederate forces reinforcing the battery at Edward's Ferry. As many as 500 infantry and four guns were suspected to be part of the Edward's Ferry build up.

The status of the ironclad battery and the steamer at Edward's Ferry was unclear to the Union leaders as the year ended. Several reports were received with respect to the condition of the vessels yet none of

them had been verified. Intelligence received from defecting Confederates and Union reconnaissance forces included that the steamer was behind schedule in construction and did not yet have an engine installed. Another report indicated that the Confederates had not yet iron-plated the battery and raised the question as to whether they would complete it. One further report indicated that the ironclad had sunk during launching and was no longer a threat. In any case, the Union forces continued to prepare Plymouth for this formidable threat as the year ended.

In actuality the ironclad's hull, casemate frame, and armor backing were installed but the shipwrights were awaiting the arrival of the engines and the armor plating. Commander James Wallace Cooke, the future commanding officer of the ironclad, actively sought iron plating from the mills in Wilmington and Richmond. However, the dilapidated North Carolina railway system caused many shipments to be side-tracked on railway spurs, where they sat, unable to be routed to Edward's Ferry. A further delay was encountered in locating a machine shop that was capable of turning down the massive stock required to construct the vessels' two propeller shafts. Such a machine shop was not identified until early in 1864.

In summary, the Union forces had firmly established a defensive posture in the sounds of North Carolina by the end of the year. The headquarters established by Major General Foster in New Bern had been reinforced with batteries and gunboats after the successful defense against a Confederate attack in March. Meanwhile, both the Army and Navy forces in Plymouth worked jointly to continue fortifications against the threat of an ironclad attack against Plymouth. Commander Renshaw established a naval ship repair facility in Washington, North Carolina, reducing the need to send gunboats out of the sounds for repair. During

the course of the year the gunboats continued operations up the Neuse, Roanoke, and Chowan Rivers, and proceeded north to the Virginia border on the Blackwater River. The low water level in the Blackwater limited the Navy to only one operation that far north during 1863. In May, for the first time during the war, the Navy conducted operations in the Meherrin River. The maneuverability of this river led to a successful operation in the Meherrin again in July.

The joint cooperation that had developed late in 1862 carried into the spring of 1863. Planning for future operations had become routine and unlike earlier in the war, many missions were preceded by reconnaissance expeditions. The concept of a unified commander had not been formally established, yet cooperation early in the year displayed evidence that the Army and Navy forces were moving in that direction. General Foster had realized the value of the Navy gunboats in the sounds and, had developed a positive working relationship with the Navy's leaders. Foster's attitude toward the Navy is best reflected in his letter of January 4th in which he wrote, "that water communication should be substituted for land transportation in the movement of my troops, so as to insure rapidity of movement and prevent letting the enemy know where I am to attack until I commence to land."[34]

During the first three months of 1863 the forces in the sounds of North Carolina had jointly coordinated several operations in Hertford, New Bern, and Washington, all which were successful. Unfortunately, the defense of New Bern resulted in a set back that slowed the progress towards a unified command concept. Although the defense of New Bern was a success, the attitudes of the leaders toward the joint effort contradicted this success. When New Bern almost fell to the Confederates the leadership of each service laid blamed on the mismanagement of the sister

service. This attitude prevailed until April when Flusser moved to Plymouth to command the Navy's gunboats there, and joined forces with Brigadier General Wessells.

Flusser and Wessells developed a cooperative working relationship that closely resembled joint operations today. At one point, much to Commander Davenport's dismay, the gunboats in Plymouth were under the operational control of General Wessells. Davenport became frustrated with Wessells when he retained the gunboats pierside in Plymouth for the protection of the Army stationed there. While the official records do not stipulate that a unified command had been established, analysis of the correspondence, and reports from Flusser and Wessells indicates such a command relationship was established. Davenport, uncomfortable with this organization, demanded that Wessells allow the gunboats do their assigned mission of patrolling the sounds.

By July General Foster had become preoccupied with his additional new assignment as the Commanding General of the Department of Virginia. Foster's typical involvement in the planning process of the North Carolina operations declined noticeably as he became busier with his increased responsibility in both Virginia and North Carolina. Decreased involvement was reflected in his indifferent attitude toward the ironclad threat up the Roanoke River. Lee, on the other hand, recognized the cooperative relationship which existed in Plymouth between Flusser and Wessells, and chose to capitalize on this relationship. Through these two leaders Lee was able to circumvent Foster and impress upon Wessells the necessity of a joint operation to defend against the ironclad. Through Wessells, the joint defensive build up of Plymouth continued until the end of the year.

During July joint activity concentrated in and around Albemarle Sound. Two joint operations were conducted by the gunboats stationed in

Plymouth. The first joint expedition was both a success and a failure. The gunboats proceeded up the Roanoke River and landed an Army force in Williamston successfully but were unable to arrive early enough to support General Wessells' forces in an attack near Gardner's Bridge. The second joint operation conducted in July was a complete success and involved the destruction of a railway bridge up the Meherrin River. Unfortunately, while the Navy enjoyed their success early in the year, General Foster felt the need for the Navy's gunboats had diminished. Subsequently, he informed Admiral Lee that up to half of the gunboats assigned to the sounds could be detached. This was an operational error that greatly impacted the events early in 1864.

By the end of 1863 General Butler had relieved General Foster and a renewed joint perspective began to develop. Overall, operations in North Carolina were no longer ad hoc as they had been in 1862, and a solid foundation existed for continued interservice cooperation.

CHAPTER 4

JOINT OPERATIONS SURROUNDING THE FALL AND RECAPTURE OF PLYMOUTH IN 1864

In January of 1864, Commander Henry K. Davenport had ten gunboats assigned to his command in the Sounds of North Carolina. The four assigned to New Bern, Underwriter, Commodore Hull, and Lockwood, were in port, while Davenport's flagship, the Hetzel, cruised the sounds near Ocracoke Inlet. The USS Miami, flagship of Lieutenant Commander Charles Flusser, was stationed in Plymouth with the three other gunboats under his command, the Southfield, Whitehead, and Seymour. Commander Richard T. Renshaw, Commanding Officer of the USS Louisiana, was responsible for the defense of Washington, North Carolina and the Granite was underway in the vicinity of Hatteras Inlet. Major General Benjamin Butler, Commanding General, Department of Virginia and North Carolina was located in Hampton Roads, Virginia, and provided overall leadership to the Army forces. However, the daily operations of the sounds were directed by Major General John J. Peck, Commanding General, Army and District of North Carolina. General Peck was located in New Bern with Brigadier General Innis N. Palmer, the Commanding General of the Army's five infantry brigades in New Bern. Meanwhile, Brigadier General Henry W. Wessells commanded the three infantry brigades of the sub-district of the Albemarle located in Plymouth, North Carolina.

The Union Army's mission in northeast North Carolina in 1864 was to continue expansion of Union control to the west, and to disrupt the Confederate use of the railroad lines of communications between Weldon,

Goldsboro, and Wilmington. General Peck's vision was to gain control of both Goldsboro and Weldon, thereby restricting the Confederate movement by rail in eastern North Carolina. The Army's second mission was coupled with the Navy's; to provide the common defense of the Union bases of operation in New Bern, Washington, and Plymouth. By January the Confederate forces had closed in on each of these bases and had established encampments in Kinston on the Neuse River and Halifax on the Roanoke River. The Navy's primary aim in January was to determine the status of and cause the destruction of the ironclad gunboat being built on the Roanoke River.

Throughout the month of January, the disposition of the ironclad vessel under construction in Halifax, North Carolina, remained a mystery. General Wessells discerned incorrectly from two travellers, that 25,000 pounds of iron plating was shipped to Halifax and that the ram neared completion. In fact, the 14 carload shipment did not arrive until March 7th and then the ram was towed from Edward's Ferry to Halifax for the installation of the iron plating.[1]

Meanwhile, Confederate troops were closing on Plymouth, Washington, and New Bern. Reports reached Wessells that rebel soldiers were fortifying the area surrounding Windsor, less than 20 miles northwest of Plymouth. After obtaining this information, Flusser planned a joint expedition of 350 soldiers and 40 sailors that departed Plymouth on January 29th. Since Windsor is located on a shallow creek off the Roanoke River, the expedition had to march 16 miles over land to assault the town. By the time the Union detachment arrived in Windsor, the Confederate forces had fled the town without firing a single shot. Contrarily, newspaper reports later that week reported that "after a fight of two

hours [the Union soldiers had been] driven from Windsor, N.C., to their boats."[2]

Even though a confrontation did not occur, this first joint endeavor of 1864 was considered a success by both General Peck and Admiral Lee. The official reports for this expedition to Windsor are short and inconclusive concerning the command structure during the excursion. In a congratulatory letter from General Peck, Lieutenant Colonel Samuel Tolles was stated as commanding the expedition. The Navy's official records, however, publish a letter from Flusser to Admiral Lee in which Flusser wrote "The report [of the press] is false from beginning to conclusion. I [Flusser] planned the affair, and we would have captured the entire party had we been ten minutes earlier."[3] The fact that Flusser's tone in the letter is one of reporting incomplete success would lead to the conclusion that Flusser planned the expedition instead of General Wessells or Colonel Tolles. Had Flusser not planned the mission, would he have reported responsibility for an incomplete success?

Meanwhile, in the southern sounds, Confederate forces prepared for an attack on New Bern. On February 1st General Palmer received information that the Confederate forces were approaching. Through Lieutenant G. W. Graves, commanding officer of the Lockwood, the gunboats in New Bern, Underwriter and Hull, were immediately ordered to anchorage in the Neuse River. The Underwriter was further directed to train her VIII-inch gun on the bridge that spanned the river to New Bern. During the move to anchorage, the Hull ran aground, where she would remain until the evening of the 2d. Concurrently, Graves moved the Lockwood up the Trent River to disrupt the Confederates that were constructing a battery in that location. Anchoring the Lockwood in the restricted waters of the Trent River ultimately contributed to the destruction of the Underwriter.[4]

During the early morning of February 2d, the Underwriter dispatched several of her launches on a reconnaissance mission up the Neuse River to determine the disposition of the Confederate forces. At 2:00 A.M. small boats were seen by the topside watch of the Underwriter but no report was made because the watch assumed they were their own returning launches. As the launches advanced within 100 yards of the Underwriter, the watchstander realized they were Confederate forces and rang the alert bell. Within 15 minutes, the Confederate force had overthrown the Underwriter, captured her crew and stores, and set her afire. General Palmer requested assistance from both the Lockwood and Fort Stephenson in New Bern. Though the Lockwood, anchored in the restrictively narrow and shallow waters of the Trent River, was unable to come to the Underwriter's defense, Fort Stephenson immediately commenced firing on the Confederate launches. By daybreak the Confederate forces had withdrawn up the Neuse River having completed their first successful attack on the Union defenses in New Bern.[5]

With the Confederate's renewed interest in New Bern, the Army realized the need for additional gunboats in the Neuse River. Accordingly, General Butler requested additional gunboat assistance from Admiral Lee. However, the campaign in the Chesapeake Bay was already utilizing all of the North Atlantic Blockading Squadron's spare gunboats. The only way Lee could comply with the request was to order the gunboats under repair in Baltimore to expedite repairs and immediately transit to North Carolina. General Palmer, in New Bern, provided the Army steamers Allison and Eagle to Lieutenant Graves' command, suggesting that they be armed with field pieces and used for additional defense in New Bern. The Army now realized the grave error that had been made in August 1863 when

General Foster recommended the Navy reassign up to half of the gunboats in the sounds to other assignments on the east coast.

On February 4th Lee ordered Flusser to move his fleet from Plymouth to New Bern to assist in the impending attack. While enroute to New Bern, Flusser received a report from a refugee that there were upwards of 5,000 Confederate troops in Kinston, west of New Bern, and that the Confederates had destroyed the railroad to the east enroute to Beaufort. Flusser reported to Lee that in his opinion the Union could not defend against simultaneous attacks on New Bern, Plymouth and Washington; he was returning to defend Plymouth until told otherwise.[6]

With the gunboats absent from Plymouth, General Wessells became uneasy and requested that Lee station additional gunboats in Albemarle Sound. Lee, realizing the severity of the Confederate threat in the sounds, decided to detach the USS Eutaw and the USS Sassacus from blockade duty in the Atlantic and assign them to the sounds. Both side-wheelers displaced over 950 tons and had a draft of seven and a half feet. Given enough water to maneuver, the fire power of their ten guns would be sufficient to defend either New Bern or Plymouth. Lee's primary concern with these vessels was their ability to maneuver without running aground, a concern which proved valid as the Eutaw ran aground in Hatteras Inlet upon her arrival. Eutaw remained aground for a day until the Ceres returned to North Carolina from Baltimore, pulling Eutaw off the sand bar as she arrived.[7]

By the middle of February, the status of the Confederate ironclad ram in Halifax had been confirmed, and General Peck's concern for an attack on Plymouth had heightened. Peck estimated that the ram would descend the river on the spring high tides. With this in mind, Peck requested that Flusser sink two light boats in the Roanoke River channel

near Plymouth to channelize the ironclad towards the Union's strongest defenses. General Butler, on the other hand, remained apathetic with respect to the ram. Displaying this attitude in a letter to Lee, he wrote that he did "not much believe in the ram, either in the Roanoke or the Neuse."[8] Flusser, meanwhile, sent the Whitehead on a reconnaissance mission up the Roanoke River. Her mission was to gather information and destroy a Confederate corn mill approximately 20 miles up river from Plymouth. After destruction of the mill, the commanding officer of the Whitehead was warned of torpedoes in the river upstream from the mill. Unable to confirm this he returned to Plymouth to rejoin the Miami and Southfield, and reported his findings to Flusser.[9]

As preparations continued in Plymouth, Peck received reports that Confederate troops were also closing in around Washington. His concern was that Washington would be attacked before Plymouth. Peck thereby requested that Davenport assign at least two gunboats to Washington and more if available. Since the Valley City had recently returned to the sounds, Davenport assigned her to join the Louisiana in Washington.

The last week of February, General Wessells dispatched the Army screw tugs Bombshell and Massasoit to proceed up the Chowan River from Plymouth to pick up refugees and deserters. Confederate forces were known to be encamped on the Chowan near an area called Petty Shore, south of the Virginia border. Knowledge of the Confederate presence should have led Wessells to expect a confrontation, yet the official records do not indicate preparations were made for any hostile encounter. Unfortunately, on March 1st, the Bombshell came under fire from a Confederate battery at Petty Shore. The Massasoit, still south of the battery, was able to send a messenger to Plymouth for help. Upon receipt of the message, Wessells immediately requested assistance from the Navy gunboats. With his typical

eagerness, Flusser was underway with the Southfield and Whitehead within 30 minutes.

At the mouth of the Chowan, the Navy's gunboats met the Massasoit which had escaped the attack. Flusser realized that the excessive drafts of the Southfield and Whitehead, both greater than seven and a half feet, were going to limit his effectiveness up the Chowan so he sent a message to Wessells to forward 100 infantrymen in the Massasoit. He could then use the shallow draft Massasoit to run the battery under the gun fire of the infantry and his Navy gunboats. That evening as the gunboats approached the battery 40 miles up the Chowan, they came under fire which continued until dark. The Confederates then lit campfires along the rivers edge to illuminate the river to prevent the gunboats from passing unnoticed.

Early the next morning Flusser sent a detachment of men ashore to relay a message to the Bombshell to fire her gun when she was ready to run the battery, then the Southfield could provide counter battery fire as a distraction. Unfortunately, the message never arrived at the Bombshell because the Confederate riverside artillery emplacements were too greatly fortified and Flusser's messengers were unable to proceed. By noon the Southfield moved into gunfire range and began shelling the battery. At that time, her only 100-pounder cannon barrel fragmented after the first shell leaving her with only five IX-inch cannons and a 12-pounder howitzer to continue shelling the battery. The Massasoit arrived shortly after noon with 90 infantrymen, but to Flusser's dismay, she had specific orders from Wessells not to proceed past the battery. Becoming quickly discouraged with the Army's performance during this engagement, Flusser sent a message to the master of the Bombshell warning him that if he did not come down the river within the next hour, the Navy was leaving.

Within the hour, the Bombshell passed the battery without a shot being fired and the four gunboats returned to Plymouth.[10]

The joint engagement up the Chowan to rescue the Bombshell was highly successful with respect to mission accomplishment, but it displayed a weakness common in joint sound operations throughout the war. The leaders were hesitant to place their assets under the command authority of the sister service. Though General Wessells quickly agreed to support Flusser by sending the requested troops, the official records imply that Flusser had very limited control over these forces. Furthermore, the official records do not document why Wessells preferred not to place the Massasoit under Flusser's control in the river. The lack of unified command and control on the Chowan could have led to failure had the Confederate soldiers sustained their offensive action against the gunboats.

By March 16th reports of the ironclad attack on Plymouth were widespread. One report indicated that the ram was to sail down the Roanoke River on April 1st and attack Plymouth while a small ground force attacked New Bern and Washington simultaneously. Another inaccurate report gave evidence that the ram was aground near Hamilton. In actuality, construction slowly continued. The rate of plating the ironclad had increased once the superintendent of construction invented a drill that reduced the drilling time from 20 to four minutes per hole. The Confederates had also salvaged machinery from Norfolk which they used to turn out two propeller shafts. While the Confederates worked intensely to meet the April 1st target date, the Union forces commenced operations around Plymouth to prepare for the onslaught of the ironclad.

Flusser's gunboats sank six barges in the Roanoke River to channelize the ram towards two batteries that the Army constructed above

Plymouth. These two new batteries, Forts Gray and Worth, were outfitted with a 100-pounder and a 200-pounder cannon respectively, aimed over the river. The Whitehead left Plymouth and assumed station seven miles up the river from Plymouth at a location known to have obstructions planted. The Ceres left New Bern to provide messenger service between the Whitehead and Plymouth. Meanwhile, the Miami and the Southfield remained in Plymouth due to their draft requirements, and the Southfield underwent repairs to replace her damaged 100-pounder cannon lost in her expedition up the Chowan River. Overall, the joint forces had aggressively prepared a formidable defense for Plymouth.[11]

While the Union prepared their defenses the first week of April, the Confederate forces moved three regiments, including a ten gun battery, from Richmond to Winton, 35 miles north of Plymouth. While the new regiments moved into Winton, additional forces also reinforced Hamilton. Conditions were developing that would favor the movement of the ironclad as the river level rose with the spring tides.[12]

On April 12th Flusser received information from three separate sources saying that the ironclad ram was heading towards Plymouth with up to 11,000 infantry in company. Though Flusser felt the estimate of 11,000 men was exaggerated, he planned an adequate defense just in case. During the next three days the Miami was rigged with a spar torpedo from bow and stern in preparation for a collision with the ram to attempt its' destruction. Flusser warned General Peck that the Navy would not be able to support the Army in its defense of Plymouth until the ram had been destroyed. On April 13th General Wessells wrote to Peck's Assistant Adjutant-General and implied that Plymouth would probably be attacked within the following few days. With this in mind, Wessells insinuated that the presence of the Commodore Perry in Plymouth would alleviate the

threat of the ironclad on the Roanoke River. Since the Perry was serving on the James River in April and was not available, General Peck and Commander Davenport dispatched the Tacony, a 974 ton, side-wheel steamer that had recently arrived in the sounds. Seven days later the Tacony returned to New Bern with messages from both Wessells and Flusser stating the their initial communications were misinterpreted, and that they did not desire the assistance of another gunboat. Unfortunately, by the time the Tacony had returned to New Bern, Plymouth had already come under siege by the Confederate forces.[13]

At 4:00 P.M. on April 17th, Confederate soldiers attacked the picket forces of the Union defenses in Plymouth and shelled Fort Gray on the outskirts of town with a battery of four guns. As the ground forces moved on Plymouth, the Confederate ironclad steamer Albemarle traveled downstream, and was located approximately 25 miles west of Plymouth in Williamston. In preparation for the ironclad's arrival, Flusser had the Miami and the Southfield lashed together hoping they could entrap the ram. By the afternoon of the 18th the ram had not yet appeared, and the town was under continued heavy artillery fire. The Army steamer Bombshell had been hit by artillery fire and sank next to the wharf, further limiting the Union's options. Contrary to his original plan, Flusser then chose to separate the Miami and the Southfield so that they could provide counter battery support for the Union Army from both above and below the town. With the heavy shelling of Fort Gray continuing throughout the day, the Army soon depleted its stock of 100-pounder shells requiring replenishment from the gunboats. By nightfall, the Confederate forces had surrounded Plymouth, and were conducting, what appeared to be, a general attack from all sides. By 8:00 P.M. the Confederate forces had ceased their advance and did not recommence until 3:00 A.M. the following morning. The evening

of the 18th, Flusser wrote Davenport that the Navy could no longer successfully support the Army, and he feared that Plymouth would fall to the Confederates.[14]

At 3:00 A.M. on the 19th the Confederates opened fire again on Forts Gray and Worth, attempting to distract the Union forces as the ironclad Albemarle drifted downstream toward Plymouth. The Captain of the Albemarle had decided to drift with the current as far as possible in order to minimize the engine noise that would draw the fire of the Union forces along the river banks. As the Confederate soldiers attacked the forts upstream from Plymouth, the Miami and the Southfield were relashed together and were driven straight towards the ram under the leadership of Commander Flusser. As the gunboats struck the ram, Southfield's hull was ruptured by a collision with the reinforced bow of the ram causing her to sink immediately. Flusser, ordering the gunboats separated, manned a 100-pounder gun himself. With the ram adjacent to the Miami, Flusser fired three shots with ten second fuses; the third of which impacted the side of the ram, sent shrapnel back at the Miami, and killed Flusser instantly. Lieutenant French, the Southfield's commanding officer, jumped from the deck of his sinking vessel and assumed command of the Miami. Realizing the CSS Albemarle was positioning herself to ram the Miami, French chose to withdraw into Albemarle Sound before the Miami was lost to the ram as well.[15]

By dawn the following morning the Confederate forces had completely enveloped the town of Plymouth, and had penetrated the town limits along the river bank. Shelling of the town ceased long enough for the Confederate commander, General Robert F. Hoke, to meet with General Wessells. Hoke requested that the Union forces surrender Plymouth immediately. Wessells refused Hoke, who returned to his forces and

recommenced the shelling of Plymouth from all four sides. By 10:00 A.M. Wessells realized that the, "condition of affairs could not be long endured without a reckless sacrifice of life; no relief could be expected, and in compliance with the earnest desire of every officer [he] consented to hoist a white flag."[16] With the surrender of Plymouth, Wessells, his staff, and all his troops were taken prisoner and moved inland to Richmond, Virginia and Andersonville, Georgia prisons. The scattered remnants of the Sub-District of the Albemarle command were then ordered to Roanoke Island and command devolved to Colonel D. W. Wardrop of the 99th New York Volunteer Infantry.

The loss of Plymouth focused more leadership attention on the North Carolina sounds. Admiral Lee recognized the need for additional gunboat support, and ordered the Commodore Barney and the Sassacus to report to Commander Davenport by the end of April. The Sassacus transported 12, new, IX-inch cannon breechings and additional ammunition with her to the sounds. In early May two more 974 ton side-wheel steamers were added to the fleet in the sounds, the gunboats Mattabesett and Wyalusing. By the middle of May the squadron in the Sounds of North Carolina had 17 gunboats assigned, the most since the first year of the war.[17]

By the last week of April Gideon Welles had taken a personal interest in the command structure of the Navy within the sounds. Welles decided to replace Commander Davenport as the Senior Officer in the sounds with Captain Melancton Smith, the commanding officer of the Onondaga. Although the official records do not specifically identify why this decision was made, it appears that Welles felt Smith to be more experienced in ironclad warfare due to his service on the Onandaga and the Manassas, both ironclad rams. Captain Smith entered the Navy in 1826, and

served aboard the frigate Brandywine and the Sloop Vincennes in the Pacific Squadron until 1830. During the next eight years he served on several sailing vessels in the West India Squadron until reassigned stateside to fight in the Indian Wars in Florida. His assignments during the years from 1840 to 1860 included ten sailing and steam vessels to include assignments as the executive officer of the Constitution, and commanding officer of the steamers Mississippi, Massachusetts, and Monongahela. At the outbreak of the Civil War he was assigned to the Gulf Coast Blockading Squadron where he remained until reassigned to the sounds of North Carolina in 1864.[18]

Welles also decided to replace Lieutenant French as the Commanding Officer of the Miami with Commander Renshaw. French was then ordered to assume command of the Louisiana, a much smaller gunboat. Renshaw's experience with both larger gunboats and with the geography of Albemarle Sound seems to have influenced this decision.

Similar to the reactions following other losses, tension within the senior leadership began to rise. In a letter from Admiral Lee to Secretary Welles, Lee implied that General Butler was trying to place the blame for the loss of Plymouth on the Navy. Butler, however, simply stated that the defense of Plymouth had been based on the Navy's occupation of the river, and that Wessells had, no doubt, been relying on this occupation. A subsequent letter, requested details about individual service responsibilities with a specificity that had never before been required. Lee's request was moving conceptually toward a concept of operation under a unified commander, but was perceived as displaying a lack of trust in Butler. Had Butler encouraged this philosophy, the concept of a unified commander may have been introduced.[19]

At the time Lee was dealing with his distrust for Butler, Davenport struggled with command relationships in New Bern. General Palmer communicated his concerns to Davenport that the gunboats were spending too much time in port when they should be patrolling the Neuse River and Pamlico Sound in defense of New Bern. Concurrently, Brigadier General Charles K. Graham, Commanding General of Army Gunboats in the Department of Virginia and North Carolina, arrived in New Bern, and implied that he was in charge of the gunboat defense of New Bern. Davenport, attempting to clarify his capacity in New Bern, wrote Lee asking that his standing with respect to the Army gunboats be defined. Davenport further amplified that he could, "not understand how anyone can be afloat in the sounds not belonging to the Navy who has an independent command."[20] By the end of the month General Graham had departed the sounds for Virginia, and Lee reconfirmed that Davenport was in command of the Navy gunboats in the sounds.

By April 26th Captain Smith had arrived, and stationed himself on the Wyalusing in Albemarle Sound with the Miami. He did not relieve Davenport as Welles had originally intended, but instead, assumed command of the flotilla in Albemarle Sound. There is no record of why Smith did not relieve Davenport. Smith was an accomplished warrior and perhaps did not intend to remain in the sounds very long. His intention seemed to be the personal destruction of the Albemarle which did not leave him time to command the entire squadron. While in Albemarle Sound the Wyalusing's and the Miami's mission was to monitor the Confederate ram and her three escort steamers located in Plymouth. The Sassacus was positioned in New Bern, and the Commodore Barney and Hull were sent to Washington to assist in withdrawal of the Union forces as ordered by General Palmer. Palmer, at his request, met with Davenport to plan the withdrawal from Washington.

Three of the five regiments stationed there had already relocated to the north so Palmer decided to withdraw the remaining troops as soon as possible. Skirmishes in Washington had become progressively more violent during the last week of April, and the plan was for Barney and Hull to transport the troops and stores to New Bern. Palmer was concerned that Washington was the next logical conquest of the Confederates as they moved south. Unfortunately as the Union forces evacuated, pillaging and destruction by the Union soldiers and sailors became widespread. The aftermath of the evacuation scarred the town for the rest of the war.[21]

During the month of May the ram Albemarle descended the Roanoke River three times to confront the Union Navy. Each time, cannon fire was exchanged and the Union gunboats endured losses. The most notable battle occurred on May 5th when the CSS Albemarle entered Albemarle Sound and confronted seven of the Union gunboats, to include the heavy gunboats Miami and Sassacus. During the ensuing five hour battle, the Sassacus sustained severe damage to her boiler and hull when ramming the Albemarle. The Miami had been rigged with a spar torpedo attached to her bow. In her attempts to ram the Albemarle, she endured severe damage to her hull and tiller room. By the end of the day the only substantial progress made by the Union was the recapture of the steamer Bombshell which had been escorting the Confederate ironclad.[22]

On May 5th the Confederate forces closed on New Bern, and drove the Union pickets back into town. By the next morning the Confederates had taken control of the railroad between New Bern and Beaufort, and destroyed several miles of track rendering it useless. Davenport ordered the Lockwood, Barney, and Louisiana underway to shell the woods surrounding the town in an attempt to break up the Confederate forces. Shelling continued throughout the day until General Hoke arrived in New

Bern and demanded that Palmer surrender. Palmer refused to concede defeat and Hoke left town as he had in Plymouth. Luckily, this time, the Confederates withdrew from the area surrounding New Bern and no further confrontation occurred. During subsequent days the Union soldiers were able to reclaim the railroad and return it to usable condition.[23]

By May 12th Captain Smith had received intelligence reports indicating the Confederates were sustaining their forces in Plymouth with the help of a grist mill on the Little Alligator River at the eastern end of Pamlico Sound. In response, an ordered joint expedition was carried out by the Ceres and the Army steamer Rockland with a detachment of 100 soldiers aboard. The acting Master of the Ceres led the expedition ashore and successfully captured 100 bushels of corn and a schooner; he also disabled the mill. Although seemingly insignificant, this successful joint operation displayed a renewed cooperation effort between the services that would continue throughout 1864.

The confrontations with the Confederate ironclad proved costly for the Union Navy. Captain Smith concluded that destruction of the Albemarle required Union creativity. Smith began work with the Army's engineers in June to develop an explosive device and delivery method that could entrap the ram, and create an explosion powerful enough to sink the vessel. Together, the forces designed a system of two launches tethered together, one manned and one loaded with explosives and a detonator. Theoretically, the manned launch would tow the explosive launch into a position that would cause the tether to wrap the other launch around the ram and explode when the two vessels contacted. Experimentally, the system worked well, but it was never put into use. Close enough proximity to the ram to successfully entrap it with the tether was determined to be suicidal. Though never used, the development of this system was another example of

the productive joint relationship developing between Captain Smith and the Army.[24]

June brought changes to the Navy chain of command in North Carolina, and the squadron expanded to its largest since the war began (see Table 4). Commander William H. Macomb, commanding officer of the USS Shamrock was ordered to the sounds to assume command from Commander Davenport as the senior officer in the sounds. Macomb was also to utilize his command ship Shamrock to assist in the destruction of the Albemarle. Correspondence does not indicate the reasons for choosing Macomb for the position in North Carolina but his experience in confronting ironclad gunboats clearly justifies the decision.

Commander Macomb began his naval career in 1834 on the frigate Potomac which was attached to the Navy's Mediterranean Squadron. In 1841 he was transferred to the Brazil Squadron where he served until his return to the United States in 1844. During the 16 years that followed, Commander Macomb served on various brigs and sloops of the East India Squadron and the Brazil Squadron. From 1859 to 1861 he commanded the steamers Metacomet and Pulaski. In 1861 Macomb was reassigned to command the steamer Genessee on the Mississippi River where he participated in almost daily engagements with Confederate batteries. In 1864 he was transferred to the Atlantic Blockading Squadron and commanded the steamer Shamrock which was eventually assigned to the sounds of North Carolina.[25]

On June 16th a successful joint expedition led by Lieutenant G. W. Graves proceeded up the Pungo River. Reconnaissance reports indicated that a band of Confederates near Leechville were capturing small boats and schooners along the Pungo River. Graves led the expedition aboard the Army steamer Ella May with a detachment of sailors from the Louisiana and 15 soldiers from the Army. The original plan was to proceed up the river

TABLE 4

VESSELS ASSIGNED TO THE SOUNDS OF NORTH CAROLINA ON JUNE 15, 1864

Name	Tonnage	Guns	Name	Tonnage	Guns
Albemarle	200	--	Bombshell	-----	--
Ceres	144	2	Chicopee	974	10
Commodore Barney	513	7	Commodore Hull	376	6
Granite	75	1	Hetzel	301	2
Lockwood	180	3	Louisiana	295	5
Mattabesett	974	10	Miami	730	8
Otsego	974	10	Renshaw	80	--
Sassacus	974	10	Seymour	133	2
Shamrock	974	11	Tacony	974	10
Valley City	190	6	Whitehead	139	4
Wyalusing	974	13			

Source: Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1901) Series I, Vol. 10, XIX-XXII & 157.

with the Ella May and the Ceres. However, the Ceres' engine malfunctioned and the Valley City was dispatched to tow it up the river. Having three gunboats, one under tow, provided extra fire power should they encounter a formidable force. During the five days that followed the expeditionary force captured three schooners, six canoes, numerous other stores, and dispersed the Confederate encampment. The overall joint operation was lauded by both Commander Macomb and General Palmer. Inter-service cooperation seemed to benefit from the new naval leadership in the sounds.[26]

By July Admiral Lee refocused his attention on the CSS Albemarle. Two months earlier Lieutenant William B. Cushing proposed a plan to destroy an ironclad in Wilmington harbor. Cushing was serving as the

commanding officer of the screw steamer Monticello at the time and enthusiastically wished to take on the challenge of confronting an ironclad. During a meeting held the first week of July between Lee and Cushing, Lee suggested Cushing attempt to destroy the ram in Plymouth. Cushing eagerly accepted the challenge but requested that he personally supervise the construction of a rubber boat with which he would attack the ram. Before the month was over, Cushing was detached from the Monticello and proceeded to New York to purchase a tug and rubber boat for use in his attack of the Albemarle.[27]

Lieutenant William B. Cushing was appointed to the Naval Academy in 1857 but resigned the following year. In 1861, Cushing reentered the service, and was attached to the North Atlantic Blockading Squadron. During 1862 he was assigned to command the steamer Ellis and later assumed command of the Monticello. During Cushing's short career he had become known for his tactical skill and zealous attitude toward battle.[28]

As the Navy concentrated on the ram in Albemarle Sound, General Palmer focused on the avenues of approach to Plymouth. His next objective was the bridge and grist mill in Columbia which supported Plymouth. Palmer's plan called for Lieutenant Colonel William W. Clark to lead an expedition of 80 soldiers up the Scuppernong River in the Army steamer Ella May, burn the bridge crossing the Scuppernong, and disable the grist mill. At the request of General Palmer, Commander Macomb assigned two shallow draft screw steamers to the expedition, the Ceres and the Whitehead. During the one day mission the joint expeditionary force successfully carried out their assignment, adding another success to the joint effort in the sounds.[29]

Shortly after the completion of this mission Palmer laid plans for the Union's next mission; to sever the lines of communication from the

north and assist any Confederate deserters along the Chowan River that were looking to serve with the Union. Palmer planned a joint expedition in which two shallow draft Army steamers, the Thomas Coyler and the Massasoit, would transport 60 soldiers and two artillery pieces for an amphibious landing up the Chowan River. On July 28th Commander Macomb dispatched the Whitehead to cooperate with Palmer's force led by Union Army Lieutenant G. F. Ward. Although the gunboats received no resistance, their participation was instrumental in transporting the troops quickly from Edenton to Gatesville where they were able to break up a band of Confederates who were coordinating contraband through the Dismal Swamp. During the two day excursion the Union forces captured 90 bales of cotton, 80 boxes of tobacco, and a Confederate steamer.[30] The cooperation during this joint effort continued the pattern of successes that had become routine in 1864.[31]

By the end of July Admiral Lee's forces had not progressed any towards destruction of the ironclad Albemarle. Secretary of the Navy Welles seemed to be losing confidence in Admiral Lee's ability to manage the squadron in the sounds. Although it is not documented, the tone of Welles' letters to Lee became more directive in nature, as if he did not have faith in Lee's decisions. The Secretary's lack of faith can be partially attributed to the inability of the gunboats to attack the ram each time she descended the Roanoke River. Welles' viewpoint toward Lee's leadership is demonstrated in several letters written during July. The most significant was one in which Welles subdivided Lee's command into separate divisions. Commander Macomb was placed in command of Division Three which incorporated all the vessels assigned to the sounds of North Carolina. Captain Smith was placed in command of the James River Division, and Admiral Lee was ordered to move to Beaufort, North Carolina

and to only visit Hampton Roads "when the public emergency requires it, giving [his] principal attention to the blockade, which has latterly become very inefficient."[32] The inefficiency Welles spoke of in this statement was primarily provoked by the large number of blockade runners which had successfully run the blockade on the Atlantic coast south of the sounds.

The recent joint successes of Lieutenant Ward and the Whitehead led to General Palmer's request that they be paired again for a joint expedition during the last week of August. Ward's mission was to transport 100 troops on the Ella May to Hyde County where they were to break the inland lines of communication. The official Navy records document the request but not that the Navy participated in this endeavor. Commander Macomb's monthly disposition report indicates that the Whitehead was in New Bern undergoing repairs on August 31st, confirming that she was not on the mission. Furthermore, all of the Navy gunboats in the sounds were accounted for with the exception of the Ceres in Macomb's report. If the Navy did participate in this venture, the 144 ton screw propelled steamer Ceres was the only gunboat unaccounted for on August 31st that could fulfill the Army's support request.[33]

The Navy's chain of command experienced changes again during the month of September. Secretary Welles designated Commodore Stephan Rowan to assume command of the Squadron on September 1st. Rowan left the sounds in 1862 to command the USS Powhatan. Rowan's temporary reassignment to the sounds lasted less than a month when at his request, Welles placed Admiral Lee in command of the sounds once again. Superficially, this appears as if Welles had renewed faith in Lee but analysis of the letters written and decisions made during September suggest that Welles chose Lee as a temporary leader for the command until Admiral Farragut could

transfer to North Carolina. Unexpectedly, Farragut's poor health changed Welles' plan and required that Welles' react quickly to order Admiral David D. Porter to assume command of the squadron. The fact that Welles did not delay in finding a relief for Lee in the sounds implies that he did not want him commanding the squadron any longer than necessary.

The circumstances surrounding Admiral Lee's relief were both politically and personality based. Lee's wife Lizzie Blair Lee was a descendant of the Blair family which was heavily involved with federal politics. It was said that "the upcoming presidential election and the intense hatred of the Radicals for all who were related to the Blair clan had influenced changes in Lincoln's administration"[34] As a result, Admiral Lee was directly effected by these changes. Lizzie's father Preston Blair, a personal friend of the Secretary of the Navy, had visited Welles and President Lincoln to specifically discuss Lee's relief. Both Welles and the President implied that Lee's relief was politically based and Welles ensured Blair that Lee would be given a command of distinction. From a military standpoint, Generals Grant and Butler would have had a great influence on the President through the Secretary of War and both of these leaders disagreed with Lee's leadership in the sounds. A letter from Assistant Secretary Fox to Welles mentioned that Grant "would not be satisfied with Lee"[35] in the Army's march to the sea. Furthermore, General Grant had worked closely with Admiral Porter along the Mississippi River and was known to have had enormous respect for Porter's actions in the battle of Vicksburg in 1863.

Additionally, General Butler and Admiral Lee had an ongoing disagreement about the blockade and trade regulations in the state of North Carolina. Because of this, Lee felt that Butler had influenced Gustavus Fox into relieving him. Although the official correspondence

does not indicate the actual reason for Lee's relief as the squadron commander, it was most likely a combination of all of the above. Professionally, he had led the North Atlantic Blockading Squadron admirably, and Secretary Welles' confidence in his leadership must have remained intact as he assigned Lee to command the Mississippi Squadron which, although a smaller squadron by 1864, was reputedly the most complex squadron in the Navy.[36]

Rear Admiral David Dixon Porter joined the Navy in 1829 and was immediately assigned to the Mediterranean Squadron. During the following six years he served on the frigates Constellation, the United States, and the ship-of-the-line Delaware. In 1841 he was commissioned a Lieutenant and assigned to the frigate Congress. Porter was actively engaged in several battles during the Mexican War. His first command assignment was the Pacific mail steamer Georgia. At the start of the Civil War he was ordered to command a mortar flotilla that assisted Admiral Farragut's attack of New Orleans. In 1862 Porter was ordered to assume command of the Mississippi Squadron which he expanded into a fleet of 125 vessels and 1,300 men, a fleet larger than any to date. Under his command the naval mortars, gunboats, and batteries expended over 16,000 shells during the Vicksburg campaign, and rendered invaluable aid to the reduction of Vicksburg. Admiral Porter's experience and rigid discipline brought new leadership to the squadron.[37]

Cooperation and confidence between the services had increased during the second half of 1864. By September the Army routinely called on its sister service for gunboat support. There were four instances during that month in which the Army found itself in need of support from the waterfront. Two specific operations were significant enough to provide illustration of the improving cooperation in the sounds. In all four of

the operations Commander Macomb eagerly complied with the Army's request and sent gunboats to the Army's aid. The first circumstance which resulted in the Army's need for assistance began in August when General Palmer ordered the Army steamer Pilot Boy to conduct routine missions up the Chowan River. The Pilot Boy's mission was to transport refugees to the safety of Union encampments. During the first week of September the Pilot Boy ran aground on submerged tree stumps and required the assistance of the steamer Chicopee to pull her free. Commander Macomb immediately dispatched the Chicopee before the Army's distressed vessel came under Confederate fire.

On September 28th the Valley City attempted to support the Army in the most significant joint endeavor of the month. Lieutenant Colonel David W. Wardrop led two Army steamers up the Alligator River at the east end of Albemarle Sound with the intent of capturing a "party of rebels who were conscripting in the vicinity of that river."[38] Wardrop had requested the Navy send a gunboat up the Scuppernong River, west of the Alligator River, to "head the rebels off should they attempt to escape that way."[39] Commander Macomb chose the Valley City to undertake this mission since she was the shallowest draft vessel in the area. The tug Martin was also ordered to accompany the Valley City and take her under tow in the event she should run aground. Unfortunately, the Valley City did run aground at the mouth of the Scuppernong River and came under heavy fire from Confederate artillery and musketry. Meanwhile, the Army steamers proceeded successfully to their objective. Overall, there is no mention in the official records as to whether any of the leaders in the sounds considered the Alligator River/Scuppernong River operation a joint success. There is mention, though, that Colonel Wardrop did succeed in capturing the Confederate party. Apparently, the Valley City did

contribute by preventing Confederate forces from escaping to the west. Furthermore, the Confederates were forced to keep their artillery focused on two locations and were unable to shift the Scuppernong assets to the Alligator River. From these reports it would seem that the mission was a successful joint operation.

On October 12th Rear Admiral Porter assumed command of the North Atlantic Blockading Squadron. During the months that followed, Porter made changes to the command that created a more cohesive, well disciplined organization than had ever existed before. As part of these changes the gunboat commanding officers were required to report the number and caliber of guns within their command, provide a name muster report, and delineate any vulnerabilities of their vessels. Porter then reorganized the squadron into five divisions and appointed a senior officer responsible for each division. The squadron in the sounds remained a separate squadron with Commander Macomb reporting to Porter instead of directly to Welles as had been done since the last reorganization in July. By October 13th Admiral Porter reported to Secretary Welles that he, having assumed command, was "ready with a sufficient force to cover any landing that may be made by the Army."[40]

Throughout October Union plans continued for the destruction of the ironclad Albemarle. The Confederate ram had spent most of the last two months undergoing repairs in Plymouth. Reconnaissance reports indicated the Union gunboats had damaged the ram with their 100-pounder cannons during the last skirmish and that the Confederates were replacing the ram's stack with one taken from the sunken gunboat Southfield. Porter, having extensive experience with ironclad battle, detailed a course of action for Macomb to follow if the ram entered the sounds again. Macomb was also informed of Lieutenant Cushing's plan, and ordered to

execute it as necessary when Cushing arrived in Albemarle Sound. Porter's general orders provided more detail for his commanders than any squadron commander to date. The change in leadership in the squadron had greatly improved efficiency in the North Carolina sounds.[41]

During the early morning hours of October 28th Lieutenant Cushing departed Albemarle Sound with two launches and a detachment of 14 sailors. His mission was to sink the CSS Albemarle. To ensure an unimpeded approach to the Albemarle, Cushing ordered one of the launches to overtake the Confederate pickets that were stationed on the sunken Southfield. Before Cushing's launch approached within striking distance of the ram they were hailed by the deck watch of the Albemarle. Refusing to answer, the launch came under heavy fire from Confederate grape and canister. Cushing immediately ordered the launch ahead at full speed in order to jump a log pen which encircled the ram. Once inside the logs, Cushing lowered the torpedo boom detonating it under the port bow of the ram, sinking it within minutes. Having been hit by cannon fire from the ram and unable to withdraw over the logs again, the Union crew jumped from the launch in an attempt to swim to safety. Only Cushing and one of his seamen escaped the violent gun fire. The remainder of his detachment either drowned or were taken prisoner.[42]

The following morning Commander Macomb moved up the Roanoke River with eight gunboats, five of which were 974 ton side-wheel steamers, each having at least ten cannons (see Table 5). The Valley City was directed to cruise up the Middle River and prevent any Confederate gunboats from escaping up the Roanoke River. Meanwhile, the rest of the flotilla proceeded in a column up the Roanoke River from Batchelor's Bay, shelling the batteries north of town en route. Finding obstructions adjacent to the batteries, Macomb ordered his forces to return to the sound. The

TABLE 5

VESSELS ASSIGNED TO THE ATTACK OF PLYMOUTH
ON OCTOBER 29, 1864

Name	Tonnage	Guns	Name	Tonnage	Guns
Chicopee	974	10	Commodore Hull	376	6
Otsego	974	10	Shamrock	974	11
Tacony	974	10	Valley City	190	6
Whitehead	139	4	Wyalusing	974	14

Source: Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1901) Series I, Vol. 11, XV-XVIII.

Valley City, hearing the gunfire cease, concluded the Union had taken the town so she advanced on the town from the other direction. Unfortunately she came under heavy fire as she passed Plymouth. Although the Valley City made what could have been a grave error, her commanding officer reported that there were no obstacles present in the river when approaching from the south; intelligence that led to the Union's subsequent success.[43]

On October 30th, Macomb's flotilla proceeded up Middle River and shelled Plymouth with its 100-pounder Parrott guns by firing on a compass bearing over the island to the east (see Figure 6). The Union shelling continued until the gunboats anchored out of cannon range from Plymouth for the night. Early the next morning the vessels were lashed together for safety in case one became disabled. This would enable the other to continue to maneuver past the town, towing the disabled gunboat to safety. Another safety precaution taken included bleeding off the steam pressure from the boilers on the Plymouth side of the gunboat. This protected the sailors from scalding suffered if a pressurized boiler was penetrated by

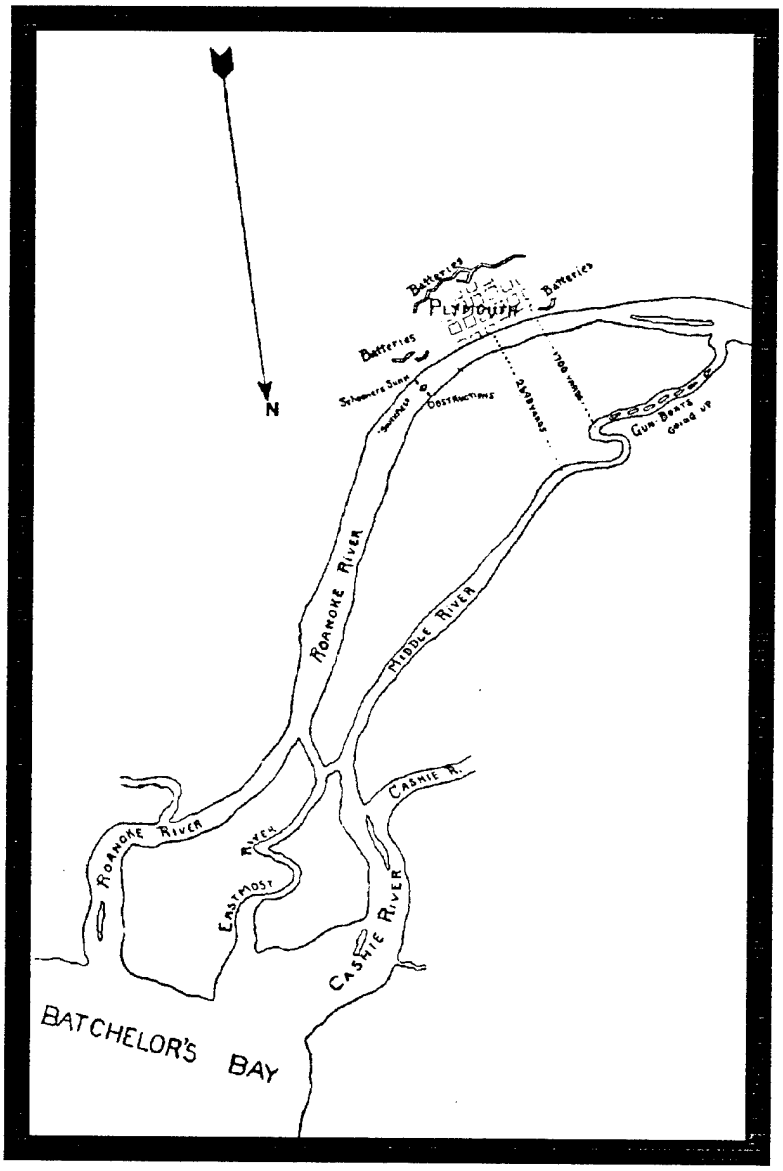


Figure 6. Naval attack on Plymouth, October 30th, 1864.[44]
Source: Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1901) Series I, Vol. 11, 13.

cannon fire. By 9:30 A.M. the flotilla was proceeding past Plymouth when a shell from the Shamrock hit the battery magazine in Plymouth causing a

massive explosion. By 1:00 P.M. the Confederate forces were in a hasty retreat and the Navy's forces landed, recapturing Plymouth.[45]

Although the Union attack on Plymouth was a naval operation, the benefit to the Army was immeasurable. General Butler had implied that the Navy was to blame for the loss of Plymouth six months earlier. Now the Navy had regained the town alone. General Palmer sent 300 troops to garrison the batteries in Plymouth the first week of November, and reported that they would hold Plymouth until ordered otherwise by General Butler. Because of the shortage of Army troops, Macomb assigned Navy gunners to assist the Army soldiers in the batteries at Fort Williams. Cooperation between the services had again expanded to include this new joint effort. The Navy's regaining of Plymouth provided the Army a forward base of operations and, once again, a stronghold in northeast North Carolina. With the main Confederate force evicted from Plymouth, the smaller force that had encamped in Washington also evacuated and moved to Rainbow Bluffs on the Roanoke River.

Having control of Albemarle Sound again, General Palmer concentrated his efforts on the Roanoke River. Intelligence reports indicated the Confederates had moved two regiments into Williamston and had fortified Rainbow Bluff, 20 miles up the Roanoke from Plymouth, with ten cannons and 500 troops. Furthermore, escaped Union prisoners warned that there was another ironclad in the final stages of construction in Halifax that was scheduled to steam towards Plymouth on the next flood tide. It seemed that the Confederates were developing a strategy to repeat their actions from April and recaptured Plymouth. With this in mind, Admiral Porter suggested a joint operation to General Butler in which the troops in Plymouth would be reinforced from New Bern and then transported up the Roanoke River. The expeditionary force would land at a

point approximately six miles below Rainbow Bluff and would attack from there. Butler communicated this vision to Palmer and further recommended that Palmer disclose a deception plan of movement up the Chowan River rather than the Roanoke River. Butler then left the details of the plan for Palmer and Macomb to resolve with the only requirement being that the mission occur promptly, taking advantage of the time while Confederate reinforcements were busy in Georgia and Virginia.[46]

While Macomb planned the Roanoke River expedition, he sent the Chicopee on a joint expedition up the Chowan River on December 2d to infiltrate a major Confederate storage depot that was located at Pitch Landing. The Chicopee embarked a detachment of troops under the command of Lieutenant Colonel Will W. Clarke and proceeded up the Chowan River. The depth of the water limited the advance of the 974 ton Chicopee and she was unable to approach closer than nine miles from the landing. With the troops landed, the commander of the Chicopee dispatched a steam launch to continue up the river in support of the Army's approach. The two forces achieved the objective simultaneously, captured the landing, and seized the largest accumulation of stores of that year in the sounds. The success of the mission was lauded by the commanding officer of the Chicopee as being one in which "perfect harmony existed between the two branches of the service during the whole expedition."[47] Although there is no record of which officer led this joint expeditionary force, the letters in the official records allude to the captain of the Chicopee leading the mission until the landing. After the landing it appears there was a transition of command to Colonel Clarke. Transition of command upon landing is reflective of the command process utilized in amphibious landings today.

By the completion of the Chowan River mission, the Roanoke expedition was ready to commence. On December 9th Commander Macomb embarked the Wyalusing and proceeded up the Roanoke with the Otsego and the Valley City in company. That first evening the gunboats anchored at Jamesville for the first of several prearranged meetings between Macomb and Colonel Jones Frankle, the commander of the Army's forces. Unfortunately, as Macomb described the situation, Frankle was "ignorant of the time it would necessarily take to get vessels of this class up a narrow and tortuous river like the Roanoke."[48] As such, the Army pressed on to Rainbow Bluff, figuring the Navy would catch up. Meanwhile, the gunboats confronted their first set back of the expedition when the Otsego encountered two torpedoes and sank within minutes at the Jamesville anchorage. Since the water depth was less than three fathoms, her hurricane deck remained above water. With this in mind, Macomb ordered a detachment of men to remain on board for the next two weeks and defend the Otsego from Confederate forces that might try to salvage the gunboat. The following day, intelligence reports indicated that the entire river was laced with torpedoes. This predominance of explosives made progress very slow and tedious for the rest of the mission.[49]

On December 11th Colonel Frankle proceeded with his forces ashore. The gunboats and the Army supply boats slowly advanced up the river, led by launches that dragged nets through the water ahead of the flotilla to search for torpedoes. During the first day alone the launches located and destroyed 21 torpedoes. Since the Army's forces led the flotilla in their advance, each evening they had to return down the river to restock with supplies. On December 15th, Frankle proposed a revised plan which had the Army bypassing Rainbow Bluff and advancing on Edwards Ferry from the opposite side of the river. Frankle's forces were to destroy the ironclad

at Edwards Ferry and proceed back down the river for an attack in the rear of the Confederates at Rainbow Bluff. By December 19th Frankle aborted this plan and chose to return to Plymouth based on his surgeon's recommendation. The official records indicate that the troops had departed Plymouth without proper shoes and many were suffering from severe frostbite and various other cold weather illnesses. Commander Macomb, frustrated, decided to continue with the mission as planned.

During the days that followed, the Navy encountered multiple hazards. Torpedoes, narrow river bends that required the sailors to attach hawsers to trees to warp the gunboats around, and river widths as little as 70 yards with overhanging trees that entangled the rigging of the vessels, all made the gunboats vulnerable to Confederate attack. During one such attack, the Wyalusing found it necessary to send a hawser ashore in order to twist the gunboat and unmask her batteries. By December 19th Macomb received intelligence that upwards of 8,000 Confederate soldiers had reinforced Rainbow Bluff. Realizing the Union had lost the initiative, Macomb ordered the gunboats to withdraw from the Roanoke River. On December 28th Admiral Porter ordered Commander Macomb to abandon the expedition and not to "cooperate with the Army again until further ordered [to by] him."[50] Although it appeared that Porter was blaming the Army for the failure, the course of events revealed that the mission was overcome by the natural and man-made obstacles. Joint relations were not the cause of the failure of this mission.

Although not specified in the official records, Porter's order to refrain from operations with the Army unless ordered appears to be personality driven and was probably tainted by Porter's opinion of General Butler's mishandling of the joint operation against Fort Fisher. Porter was infuriated with Butler by the end of the year due to the apathetic

method with which Butler prepared for the attack on Fort Fisher, and even more, for withdrawing the Army's forces from the attack without consulting the Navy. It seems that this outburst from Admiral Porter was a reflection of the short tempered, forthright, style of speech that he was known for. In any event, Porter's attitude toward the Army seemed to be founded in an unfavorable attitude toward General Butler and did not have a lasting effect on cooperations between the sister services. The short duration of Porter's attitude can probably be attributed to General Butler's relief in January and the assignment of Major General Alfred H. Terry to command Butler's forces. Terry, very early in his tenure, developed a positive working relationship with the Navy; one that earned the respect of Admiral Porter.[51]

Joint operations in the sounds of North Carolina during 1864 had the highest rate of success of any year during the war. Of the 14 missions and engagements undertaken by the joint forces during the year, all except two could be considered highly successful. The Army's chain of command had remained the same throughout the year with Brigadier General Palmer commanding the District of North Carolina from New Bern. Brigadier General Wessells commanded the Army's forces in Plymouth until his capture during the siege of Plymouth. The Navy, however, experienced two significant leadership changes during 1864, both which improved the already successful operations taking place in the sounds. By mid year, Admiral Lee and Captain Smith had been relieved by Rear Admiral David Porter and Commander William Macomb respectively. These new officers brought with them both riverine and joint experiences that positively affected the joint relationship which had been developing.

Operationally, 1864 began with the threat of an ironclad attack looming over the forces in the sounds. The Confederate Army had closed in

on both New Bern and Plymouth but the main effort, surrounding Plymouth, resulted in the Confederate capture of the town in April when the ironclad Albemarle finally descended the Roanoke River. The siege of Plymouth began as a joint operation with the Navy effectively supporting the Army as the Confederates approached. However, the approach of the Albemarle distracted the Navy's defensive efforts from the Army and resulted in Commander Flusser's inability to concentrate his flotilla on the defense of the town. Flusser did not have the assets available to defend two avenues of approach and this led to the fall of Plymouth. Had the Albemarle not been available for the Confederates, the joint forces in Plymouth would have restrained the advancing Confederate forces, and Plymouth would not have fallen. Once Plymouth was under Confederate control, General Palmer and Commander Davenport were forced to concentrate on operations east of the Roanoke River.

Operations continued throughout the year against the ironclad and resulted in numerous losses for the Navy gunboats. The loss of Plymouth as well as the damage to the gunboats throughout the summer culminated in the relief of Rear Admiral Lee and the assignment of Rear Admiral Porter to command the North Atlantic Blockading Squadron. Under Porter's leadership, the Navy gunboats conducted several joint operations in a new region between Albemarle and Pamlico Sounds which had not yet been explored by the gunboats. Expeditions up the Pungo, Scuppernong and Alligator Rivers resulted in successful joint operations which led to the capture or destruction of Confederate supplies. These successes reinforced the developing joint posture while achieving the overall mission of cutting off all Confederate supply lines.

By 1864 the leaders of both services had realized the benefits derived from mutual cooperation. Naval support was essential to the Army

for both gunfire support and transportation to and from their objectives. Through river transportation, the Army moved more troops faster than on foot with the added benefit of initiating an attack with rested troops. Similarly, the Navy often relied on Army infantry to capture forts along the rivers and provide protection along the high river banks. With limited shielding to protect the gunners-mates topside, the sailors were vulnerable to musket attacks from the Confederate pickets along the rivers. These coordinated efforts indicate more advance planning being conducted than in the past and expeditions were no longer occurring in an ad hoc manner.

Although meetings routinely occurred between the Army and Navy leaders, there was still no indication that a unified commander existed. The decisions made were by joint committee and each service retained command over its' own forces. Analysis of the correspondence between the leaders in the sounds does indicate though, that the Army leaders took the lead in establishing both defensive and offensive plans. During each mission as well as the emergencies that arose, Commanders Davenport, Flusser, and Macomb responded with unrelenting dedication to each Army gunboat request and joint success prevailed.

As the year ended Porter's forces had recaptured Plymouth, and in conjunction with a small detachment of General Palmer's troops, the Union had reestablished a defense for the town. New Bern continued to be maintained as both Palmer's and Macomb's headquarters, and the Navy gunboats were dispersed between New Bern and Plymouth. The Union forces in the sounds of North Carolina could once again focus on objectives to the west.

CHAPTER 5

THE DISSOLUTION OF THE NORTH ATLANTIC BLOCKADING SQUADRON

The final year of the war began with Admiral David Porter commanding the North Atlantic Blockading Squadron from Hampton Roads, Virginia. Commander William Macomb commanded the blockading squadron in the sounds of North Carolina from his flag ship Shamrock, in New Bern. By January 1st the Navy's missions were the second attack on Fort Fisher, 100 miles to the south of the sounds, and the destruction of the ironclads on the Neuse and Roanoke Rivers. A failed attack on Fort Fisher in December had resulted in Admiral Porter withdrawing several gunboats from the sounds to the Atlantic Ocean at the end of 1864, leaving only eight gunboats and several tugs under Macomb's command on the inland waters of North Carolina (see Table 6). Assisting Macomb was his senior officer in Plymouth, Commander John C. Febiger, commanding officer of the Mattabesett. In conjunction with the above stated missions, Admiral Porter continued the longstanding policy of providing support to the Army in any way necessary.

Admiral Porter's Army colleague in Hampton Roads was Major General Benjamin Butler, Commanding General, Department of Virginia and North Carolina. Butler's war efforts in North Carolina were led by Major General John J. Peck, Commanding General, Army and District of North Carolina. General Peck was located in New Bern with his division commander, Brigadier General Innis N. Palmer, who was responsible for the forces in New Bern as well as small detachments of soldiers assigned to both Washington and Plymouth. The Army's primary missions in eastern North Carolina during 1865

were to gain control of Fort Fisher, thereby controlling the entire North Carolina seaboard, and to move westward, capturing Weldon to command the railhead located there.

TABLE 6

VESSELS ASSIGNED TO THE SOUNDS OF NORTH CAROLINA ON JANUARY 1, 1865

Name	Tonnage	Guns	Name	Tonnage	Guns
Belle	60	2	Ceres	144	2
Commodore Hull	376	6	Lockwood	180	3
Mattabesett	974	10	Shamrock	974	11
Valley City	190	6	Wyalusing	974	14

Source: Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1901) Series I, Vol. 11, 398-400.

In January command attention had shifted to a newly constructed ironclad on the Neuse River, and the build up of Confederate forces in Kinston. Macomb wrote to Porter informing him that the ram was completed but had not yet attempted to descend the river. It was both Macomb and General Peck's belief that the ram's draft was in excess of the rivers depth and she would not be able to descend until the spring high tides. Luckily, the necessary delay would allow Union forces in New Bern to reinforce before an attack could occur.

Meanwhile, further intelligence reports indicated that another ironclad was under construction at Edwards' Ferry on the Roanoke River and was expected to descend the Roanoke River to Plymouth within six months. Since the ironclad in Edwards' Ferry did not have any iron plating on it yet, General Peck ordered an Army expedition to destroy the vessel. Peck's plan was for an Army detachment to be ferried up the Chowan River in Army

transports to a line of departure near Colerain. From Colerain, the troops were to travel cross country to Edwards' Ferry, and burn the ironclad. Analysis of the official records indicates that on January 28th, Macomb voluntarily sent the Valley City to Colerain to provide gunfire support from the Chowan River for the Army's troops there. The Valley City, however, did not report any gunfire activity or expenditure of ammunition while in the Chowan River. The only reference to the expedition is in a letter from Macomb to Porter in which Macomb states that an Army steamer had run into submerged tree stumps and sank. He further reported that the "troops never marched a foot from the place they landed,"[1] while spending their entire time raising their steamer and raiding for cotton and tobacco. Similarly, the Army official records do not document any activity that transpired during this expedition in Colerain so it can be concluded that the force did not encounter any resistance in Colerain, nor did they achieve their objective of moving to Edwards' Ferry.

Interestingly, correspondence from Admiral Porter suggests that he still supported joint operations in the sounds and the dissenting opinion he displayed towards the Army on December 28th had passed. There is no evidence in the official records that he formally rescinded his order not to cooperate with the Army until further ordered, yet joint expeditions continued as they had in the past. Both Commander Macomb and his assistants conducted joint operations with the Army in North Carolina throughout 1865 without receiving specific orders from Admiral Porter.[2]

By the end of January Porter broke up the divisions of the North Atlantic Blockading Squadron into two squadrons; the squadron in the sounds and the James River Flotilla in Virginia. The decline in both blockade runners and the Confederate threat to the littoral areas of the north Atlantic seaboard enabled Porter to fragment his fleet, concentrating his

naval forces on these two regions of conflict. With extra gunboats now available for the sounds, Porter ordered the Massasoit, Hunchback, and Agawam to New Bern to reinforce the dilapidated vessels there, and sent the Iosco to Plymouth. The Commodore Hull and Lockwood, both in New Bern, were reported as unfit for duty and were not operable again until April. While these changes took place in the Navy, changes in the Army's leadership occurred also. Major General John M. Schofield was ordered to assume command of the Department of North Carolina and Major General Alfred H. Terry relieved General Butler in Virginia.[3]

General Schofield graduated from West Point in 1853, and was assigned as an instructor at the Military Academy in Florida. At the start of the Civil War, Schofield served as a mustering officer for the State of Missouri and eventually earned command of the State of Missouri militia. Between 1862 and 1864 he commanded several military districts in Missouri, to include the position of Commanding General Department of Missouri. In 1864 General Schofield assumed command of the XXIII Corps, Department of Ohio which he marched through Tennessee to North Carolina during the following nine months. On February 9, 1865, Major General Schofield assumed command of the Department of North Carolina where he remained until the end of the war.[4]

Schofield's mission in North Carolina was threefold. His first objective was the occupation of Goldsboro, from where he could embark on his second mission to open the railroad lines of communications between there and the sea. Throughout his campaign in North Carolina, his third objective was to accumulate supplies for both his Army and Major General Sherman's military Division of the Mississippi. A lack of railcars and shortage of wagons in Wilmington created the necessity for Schofield to relocate his troops to New Bern and conduct his operations towards Goldsboro from there.[5]

By the first of March various reports had been received with respect to the ironclads on both the Neuse and the Roanoke Rivers. As the defensive buildup of gunboats continued along both rivers, Commander Macomb divided his time between Plymouth and New Bern. During his absence, Commander Alexander C. Rhind, the commanding officer of the 974 ton side-wheel steamer Agawam, assumed the duty as senior officer in New Bern.

On March 9th General Palmer, concerned with a recurrence of the type of events that took place in Plymouth a year earlier, met with Commander Rhind. During this meeting Palmer urged Rhind to send a naval force on a reconnaissance mission up the Neuse River to ascertain the status of the ironclad as well as confirm reports that the Confederates had built a pontoon bridge across the river near Kinston. Rhind reacted immediately and sent a joint expedition, under the command of Lieutenant Commander Thornton of the Iosco, up the river with eight Navy boat crews. The Iosco, at 974 tons, was too deep drafted to navigate the Neuse River so Rhind enlisted the support of the Army steamers Shrapnel and Ella May. By the time the steamers had arrived at Kinston, Generals Darius Couch and Jacob Cox had moved their divisions into the Kinston region from the south and the east, thereby forcing the evacuation of the Confederates. On March 12th the Army steamers returned to New Bern for lack of coal, and reported the Confederate evacuation, the non-existence of a pontoon bridge and most importantly, they reported the ironclad as being afloat. Unfortunately, their shortage of coal resulted in the inability to take offensive action against the ram while they were so close.[6]

The results of this expedition highlighted the naval deficiency that existed in New Bern during 1865. There were no shallow draft gunboats available to use in an offensive mission. Commander Rhind realized this and reported to Commander Macomb that the Navy was "unfortunately, dependent on

the army for light draft steamers"[7] and that he planned to outfit the Army steamer Ella May with a torpedo and send her back up the Neuse at the request of General Cox. General Schofield, however, informed Rhind that the Navy would no longer have the Army steamers at their disposal. There was an obvious difference of opinion between General Cox's desires for the gunboats and General Schofield's vision for their use. This inconsistency is not explained in the official records but abstracts from General Cox's journal indicate that the steamers continued to be employed on missions transporting supplies from New Bern to Schofield's new encampment in Kinston.[8] It appears that Schofield did not want to relinquish control of his waterborne assets to the Navy because he wanted to retain the steamers in direct logistic support of his troops vice offensive support as General Cox had intended to use them.

By March 14th Cox reported that his troops had burned the ram in Kinston. With the Confederate Army removed from Kinston, the Union Army continued reinforcement of the area through the end of March. In support of the buildup, Admiral Porter ordered several tugs and picket boats to Macomb's command to assist the Army by towing flat boats and canal boats up the Neuse River to Kinston. Porter's support for joint operation in the Kinston region is reflected in letter to Macomb in which he stated that "operations are soon about to be commenced on a large scale in your district, and I want you to cooperate with General Sherman to the fullest extent."[9] Shortly after receipt of this letter, Commander Macomb met with General Sherman to develop their plan for the sounds. By the end of their meeting it had been decided that Commander Rhind would attend to everything relating to the Navy on the Neuse River and that Macomb would attend to the missions on the Chowan River. Within the next week, Porter reiterated his support for the Army to General Edward Ord, commanding general of the

Department of Virginia, and they mutually decided that the gunboats would take possession of the Chowan River in the vicinity of Winton and remain there to protect Sherman's foraging troops. Furthermore, the gunboats would provide ferry service for the Army troops moving down from Virginia across the river when heading west toward Weldon.[10]

On April 1st Commander Macomb led the Shamrock, Wyoming, Hunchback, Valley City, and Whitehead up the Chowan River on the last joint operation of the war. Knowing that torpedoes were prevalent in the Chowan, the gunboats ascended the river led by their launches which dragged the river bottom for torpedoes. This slow, tedious process resulted in a two day transit to Winton, which resulted in the First New York Mounted Rifles regiment arriving at Winton on the east bank of the river before the gunboats. As Macomb's flotilla arrived, soldiers from the First New York were exchanging fire with Confederate pickets on the west bank of the river. Noticing the arriving gunboats the Confederates dispersed into the woods, so Macomb immediately ordered a cannonade by the lead gunboats to ensure they were driven away from the river.

The evening of April 2d Colonel Edwin V. Sumner visited the Shamrock to apprise Commander Macomb of his plans and his objective for the expedition. Sumner needed his troops ferried across the Chowan that evening so that they could commence a march to Murfreesboro. While Sumner's troops headed for Murfreesboro, Macomb was to move the gunboats there for a reunion with Sumner's troops. Sumner's vision foresaw the troops being ferried across the Meherrin in order to continue west to their ultimate objective in Weldon.[11]

Later that night the Wyalusing arrived in Winton, and Macomb left her to provide support to the Army detachment in Winton while the rest of the flotilla proceeded up the Chowan and the Meherrin Rivers to

Murfreesboro. The morning of April 4th the Shokokan arrived in Winton and Macomb stationed her and 50 soldiers south of Murfreesboro at a high bluff that posed a threat to the gunboats. The river was so narrow adjacent to the bluff that the sailors had to warp the gunboats around the bend with hawsers attached to the trees. This left the gunboats very vulnerable while maneuvering the bend. At the time this occurred, Colonel Sumner had departed the area, thereby leaving Commander Macomb as the senior officer present. There is no evidence of this event in the Army official records but Macomb's letter to Porter implies that he gave the order to station soldiers at the bluff to protect the gunboats. If Macomb gave such an order and it was followed, it would indicate that the Army detachment had fallen under the command of a naval officer displaying the progress that joint operations had achieved since 1862.[12]

By the time Macomb's force had arrived in Murfreesboro, the Army had bypassed the town and proceeded on to Weldon where they destroyed approximately one mile of railroad track. By April 5th Sumner returned his force to Murfreesboro without attacking Weldon because the Confederate forces there were too strong to confront. Sumner asked that the gunboats remain at Murfreesboro and Winton to ferry the troops across the rivers as they arrived during the days that followed; a task Macomb eagerly agreed to perform.

By the end of April the war was coming to a conclusion, and the Confederate forces were withdrawing to the west and south. Admiral Porter had requested that Rear Admiral William Radford assume command of the James River fleet while Porter attended to business in the north. Porter's letter to Secretary Welles suggested that this request was for Radford to temporarily relieve him, but by the first of May, Secretary Welles ordered Rear Admiral William Radford to permanently assume duties as commander of

the North Atlantic Blockading Squadron. Porter was then transferred to command the City Squadron headquartered in Washington D.C. where he frequently escorted President Lincoln on tours behind the Union lines. At the time of Porter's relief, Welles also ordered a decrease in the size of the North Atlantic Blockading Squadron from 89 vessels to 30 vessels, which was further reduced by the middle of May to six tugs, seven steamers, and one monitor. This reduction impacted the sounds of North Carolina by reducing Commander Macomb's force to the Shamrock, Iosco, and two tugs. The rest of the vessels were sent to Philadelphia, New York, Boston, and Portsmouth, New Hampshire to be returned to civil service or refurbished in naval shipyards.[13]

On May 19th Major General Schofield issued an order that announced the cessation of hostilities in North Carolina and proclaimed peace. Commander Macomb, realized he would have very little responsibility in the post war sounds of North Carolina and requested that Secretary Welles relieve him of his command in the sounds. By the middle of June Macomb left North Carolina and moved the Shokokan to Hampton Roads. Admiral Radford was then ordered to abandon the naval station in the sounds and move to Port Royal, South Carolina to assume command of the consolidated North and South Atlantic Blockading Squadrons thereafter called the Atlantic Squadron.[14]

Joint operations of 1865 began as a defense against the threats of two more Confederate ironclad gunboats, this time on both the Roanoke and the Neuse Rivers. Numerous Union gunboats from the sounds had been reassigned to the massive buildup against Fort Fisher on the Atlantic coast so the Navy had to rely on the Army steamers to conduct reconnaissance up the Neuse River. Under the command of a Navy Lieutenant Commander, two Army gunboats proceeded up the Neuse River to conduct reconnaissance of the Confederate ironclad. Although the Army's troops had already arrived in the

area, the mission can still be considered a reconnaissance success as the Army gunboats were able to demonstrate the need for shallow draft Navy steamers in the Neuse River. General Cox seemed to agree as he requested continued gunboat support from Commander Rhind though his desires were overruled by General Schofield.

The final joint expedition in the sounds indicated the progress of joint operations since the start of the Civil War. Admiral Porter ordered his Navy commanders to provide all the support necessary to safeguard the Army's endeavors in North Carolina. Operational planning was at a peak and was reflected in the coordination which occurred during this last North Carolina joint expedition. The Chowan River expedition was conducted by the Navy forces from North Carolina and Army forces from Virginia, a task that had to be planned across departmental boundaries. This same kind of operation failed terribly in 1863 because of the lack of inter-departmental planning. Admiral Porter, aware of the complexity of an operation like this, liaisoned between the Department of Virginia and Commander Macomb in the sounds. Macomb then coordinated his portion of the operation through meetings with General Sherman in which they decided on a plan that would achieve Sherman's mission. From that point, Macomb proceeded with the mission up the Chowan, prearranging another coordination meeting between himself and Colonel Sumner upon their arrival in Winton. Through thorough planning, the joint forces were able to support each other to the best of their abilities. Though neither Macomb nor Sumner had command authority over the other service's forces, the naval commander responded to every request made by the Army. Cooperation at this level was the closest that the joint forces came to achieving a unified commander in the North Carolina sounds during the Civil War.

By the end of the war in May, General Schofield had achieved the three primary missions which he had established when he assumed command. As the Union troops moved west and reinforced Kinston, the Army forces were able to force the withdrawal of the Confederates west of Goldsboro. While moving westward, Schofield's engineers repaired the railroad lines from Morehead City, through New Bern and on to Goldsboro providing a logistic line of communication as the Union advanced. As Schofield moved on Goldsboro, the Confederates eventually withdrew westward from Weldon allowing the Union to control the railhead located there, and giving Schofield control of the railways in eastern North Carolina.

Commander Macomb's gunboats continued to control the water avenues of approach along the Chowan and Neuse Rivers, and supported the Union Army in achieving Schofield's third mission, continuing to accumulate supplies and forage in the fertile grounds of northeastern North Carolina. Additionally, through the help of the Army, the Navy's goal of destroying the ironclad on the Neuse River was achieved and the ram on the Roanoke River was never completed. By the end of the war, each of the missions the joint forces had set out to accomplish had been achieved and a joint relationship had developed that would provide a solid foundation for joint riverine warfare in the future.

CHAPTER SIX

CONCLUSIONS

This thesis has examined the joint operations that occurred in the sounds of North Carolina between February 1862 and June 1865 in order to answer the following questions:

1. How did joint operations develop in the North Carolina sounds and rivers during the Civil War between February 1862 and June 1865?

2. What impact did environment have on joint operations?

3. Did joint planning occur and if so how did it effect the battles in the North Carolina sounds?

4. What effect did individual leaders and communication issues have on the development and success of joint operations?

Multiple conclusions can be drawn from the joint operations of northeastern North Carolina. Initially, joint operations were ad hoc in both nature and organization. The early Civil War missions conducted were not preceded by reconnaissance or advance planning. Both of these oversights hampered the success of the joint effort during 1862 and 1863. As the war progressed and experience was gained, the necessity for planning became more apparent and a truly integrated joint force emerged by 1865, yet a unified commander had still not been established. Had a unified commander been designated, operations in northeastern North Carolina could have been more easily orchestrated and probably more successful during the early years of the war. Additionally, this study revealed that leaders with significant joint operational and riverine experience had the greatest impact on the development of the joint

relationship. Notable impact is seen in the secondary issues of communications and planning.

In January 1862 when Flag Officer Goldsborough and Major General Burnside first met to organize the joint operation forces to Roanoke Island, the command structure which existed was one of mutual cooperation. General Burnside had been ordered to coordinate the use of the Navy's assets as needed while Flag Officer Goldsborough had been told to assist Burnside and provide whatever support necessary for the Army to achieve their mission. The relationship between the Army and the Navy, as originally ordered, did not change during the course of the war but the effectiveness of the joint relationship improved significantly due to the changes in leadership.

Neither Burnside nor Goldsborough had experience in leading joint expeditions prior to January 1862. The enormous success of the Roanoke Island expedition in 1862 seems to have misled both leaders to assume that leading joint operations was uncomplicated. Once the Union forces were established in the sounds, missions were hurriedly organized with no effort placed on advance planning. Most missions were planned en route to the objective by the embarked commanders. As a result, the early Civil War joint missions in North Carolina were plagued by numerous unforeseen events. Gunboats were often unable to achieve their objectives due to groundings and obstructions. The failure to conduct reconnaissance prior to the joint missions undertaken in 1862 resulted in a lack of contingency planning necessary in riverine warfare. Without a provisional plan that had been jointly agreed upon, obstructions that impeded the gunboats usually resulted in the failure of both services to meet their objectives. The most common hindrance to the gunboats was the mine, or torpedo as it was called during the Civil War.

Mine warfare was in its infancy and the Navy's leaders had not planned a defense against this new submerged threat. Furthermore, the Confederate Army routinely implanted iron capped tree stumps in the river bottoms to pierce the gunboat's hulls as they passed over the stumps. These man-made obstacles complemented the natural obstacles that also plagued the gunboats. Narrow river bends, shallow water, and overhanging trees severely hampered the Union gunboats for the first two years of the war. By 1865 past experience and reconnaissance missions had provided valuable insight to the naval commanders about the possible natural and man-made obstacles that could be encountered. This insight facilitated the commanders in assigning the appropriate assets to the more demanding rivers. Overcoming these early challenges provided valuable experience for General Burnside's immediate subordinate, Brigadier General John Foster. By 1863 as Foster assumed command of the Army's forces in North Carolina, detailed planning that included the naval leaders had become routine. Foster had worked closely with the Navy's leaders while he was a brigade commander in 1862 which positively impacted the development of a more mature joint relationship by the end of 1863. By 1864 Brigadier General Innis Palmer, having been Foster's immediate subordinate, also realized the necessity for mutual support between the Army and the Navy. Palmer continued to nurture the fledgling joint relationship after he relieved General Foster as the commanding general in North Carolina.

Naval leadership in the sounds also facilitated development of the joint relationship. Both Admiral Lee and his relief, Admiral Porter, had extensive joint and riverine warfare experience early in the Civil War. From their previous experiences, Lee and Porter recognized the need for mutual support, and as such, eagerly contributed to the maturing Army/Navy relationship.

As the joint relationship grew, improvements became evident in communications and planning. At the start of the war, the Army and Navy's forces in the sounds lacked a consistent, agreed upon method of communication while on expeditions. Without a mutually agreed upon system to signal the location of the troops, the naval gunboats were unable to support the Army's movements while out of sight of the river banks. Shelling became ineffective and dangerous on occasions as shells, blindly fired into the woods, either wasted ammunition or threatened fratricide. The siege of New Bern in 1862 showed examples of both difficulties.

By 1863 and under the command of General John Foster many of these communications challenges were addressed. Through extensive planning Foster incorporated a unified set of signals that the troops used to communicate their advance when out of visual range of the gunboats. Successful signals enabled the Navy to provide gunfire support ahead of the Army's advancing troops. These signals were then documented in correspondence from General Foster and provided to the Navy's leaders for further dissemination to the gunboat commanders. As an example of mutual coordination, the communication successes are indicative of how knowledgeable leadership guided the planning process as the war progressed. Effective planning was eventually coupled with advance reconnaissance missions by 1865, creating an even more productive joint effort.

By 1865 a detachment of Army soldiers was routinely included in the gunboats' missions demonstrating that planning had become an integral part of the joint relationship. These Army detachments stationed on the gunboats served two purposes. The first: infantrymen provided counter-musket fire in situations in which the gunboats' cannons were unable to elevate sufficiently to provide self defense. Secondly, the soldiers were

incorporated into the gunboat missions positioning themselves along the bends in the river banks to ensure Confederate pickets were unable to ambush the gunboats. Similar procedures continued until the end of the war and successfully averted additional casualties from Confederate fire.

By the conclusion of the Civil War, both the Army and the Navy realized that the Union effort in northeastern North Carolina was a joint effort. Each service needed the other if they were to succeed. The Army benefitted from the distinct advantage of faster mobility, extensive logistic support, and covert movement inland through the use of the gunboats. The Navy's gunboats provided three significant services to the Army. First, the gunboats provided the Army commanders transportation to safely move their troops to the area of operations without suffering from the physical exhaustion that accompanies long road marches. Secondly, the Navy provided the service of transporting the troops across wide river expanses that often separated the troops from their objectives. And lastly, the Army greatly benefitted from the large, mobile cannons of the gunboats, both offensively and defensively.

Additionally, the Navy benefitted from the Army's picket support along the river banks as well as the reconnaissance that the Army provided from their soldiers located further inland. A further benefit for the Navy was the utilization of the Army's gunboats and transports on Navy missions. The naval commanders were able to effectively integrate the Navy gunboat crews onto the shallower draft Army gunboats and jointly pursue objectives further inland into shallower waters. The combination of the Navy's river navigation expertise and the shallow draft gunboats from the Army resulted in an effective joint fighting force.

The relevance of this study to military scholars and joint commanders is significant because of lessons learned regarding how to

maximize benefits from the following areas: technology, training, organizational structure, and individual commander's personalities. As today's Navy is restructured to conduct joint operations in the littoral regions of the world, joint commanders must consider the aforementioned areas when preparing for joint riverine operations.

Unlike warfare on the high seas, riverine warfare is plagued by restricted waters that create numerous natural vulnerabilities. Shifting sandbars, shallow water, and narrow channels continually challenge even the most astute gunboat navigators; while high river banks and heavy foliage combine to provide the adversary the tactical advantage of cover and concealment. Operations in the North Carolina sounds between 1862 and 1865 were laced with examples of obstacles that will continue to challenge riverine warfare commanders today and in the future. Riverine warfare, in 1862 as well as today, does not require highly technological weapons. Simple obstructions such as iron capped stumps submerged just beneath the waterline or chains stretched across a river remain as effective against today's coastal patrol craft as they were against the gunboats used in the Civil War. The Civil War vessels chosen for this unique warfare environment were not constructed to deal with the challenges presented. However, naval patrol craft built today are designed to better meet these challenges with, currently available, highly accurate radar and sonar devices. To better prepare for joint riverine warfare, unified commanders must incorporate the Navy's new Osprey class coastal mine hunting vessel into the joint riverine training environment. Furthermore, commanders should extend the five day endurance of the vessel to the proposed 14 day endurance. The additional nine day capability will avoid the necessity of abandoning unachieved objectives because of unforeseen man-made or natural impediments. Additionally, senior Army non-commissioned officers should

be assigned to each vessel to provide a well-versed interface between the sister services.

To complement the Osprey class mine hunter, the Army should coordinate operations with a squadron of the Navy's newest Cyclone class coastal patrol craft and incorporate the Short Range Unmanned Aerial Vehicle (SRUAV) into the littoral missions. With a joint crew assigned to the Cyclone class vessel, appropriately trained Army personnel are onboard to analyze the topographic information received via the SRUAV receiver. Such a joint riverine warfare team would be fully capable of safe, aggressive maneuver well within the littoral.

Unified commanders will also discover the relevancy of this Civil War study in the area of training. During the Civil War, with the joint concept in its infancy, joint training was not conducted to prepare for the missions undertaken. However, commanders today must ensure that the Army's special forces are incorporated into the Navy's coastal patrol craft training. Joint training would ensure that the sister service's capabilities and limitations are jointly understood and that forces can complement each other on shared missions. Specific areas of cross training to be considered include Army topographic engineers being sent to the Navy's hydrographic engineering schools and the Navy's hydrographic surveyors being jointly trained in the Army's topographic schools. These soldiers and sailors can then be assigned to both the Osprey and Cyclone class vessels to better prepare for joint missions. Additionally, joint training incorporating the U.S. Coast Guard's river operational knowledge and experience would provide another dimension of expertise.

Today's unified commanders must recognize that a unified effort is the key to success on inland waterways. During the Civil War, the Army commanders in the North Carolina sounds developed the primary objectives,

whether inland or in the littoral region. Often, failure resulted when the Generals chose objectives that were unrealistic for the gunboats to achieve such as in July of 1863 during the Williamston/Jamesville expedition. Had there been joint planning of objectives, more attainable missions would have emerged. A contributing factor to the difficult process of planning joint operations during the Civil War was the lack of a joint doctrine or of standard operating procedures. Today, through the use of joint doctrine, unified commanders can be more effective in coordinating difficult Army/Navy missions. However, today's doctrine lacks the specificity necessary to optimize success in riverine warfare. Unified commanders faced with joint riverine-based missions will need to draft standard operating procedures to thoroughly delineate responsibilities of each service until adequate doctrine is developed.

An additional consideration concerning the unified command structure is the necessity of proper leadership based upon the mission objectives. If the objective is within the littoral region, a Navy commander should be assigned as the joint force commander. However, if the objective is further inland, the joint force commander must be assigned from the Army.

A final consideration when choosing a unified commander relates to the personality of the commander. During the North Carolina expeditions, personalities drove or failed to drive the cooperative effort with sometimes detrimental results. Personalities of unified commanders remain important today despite a more doctrinal environment. Our ever-present inter-service rivalry, coupled with strong-willed personalities, continues to exist creating the potential to ruin clear headed planning and resource management. Today's unified commanders must understand, respect and utilize each service's capabilities and resources as designed regardless

of their own past loyalties to a specific service or mode of operation. Personalities which favor holistic understanding of each aspect of a mission and a given mission's significance to the larger warfare effort will excel in joint command situations. Flexibility, creative use of resources, a keen understanding of complex issues, excellent communications skills, and leadership which inspires respect from all levels of the joint command are essential characteristics for a successful joint commander in the riverine warfare environment.

In summary, today's joint commanders must realize that riverine warfare involves numerous natural and man-made obstacles that will challenge even the most technologically advanced assets. Riverine warfare in the North Carolina sounds during the Civil War has taught us that advanced joint planning and training are essential to the success of riverine warfare and that unified command and control are essential to success in the littoral region.

ENDNOTES

Chapter One

[1]Russell F. Weigley, The American Way of War (Bloomington, IN: Indiana University Press, 1973), 59.

[2]George Walton, Fearless and Free: The Seminole Indian War, 1835-1842 (New York: Bobbs-Merrill Co., Inc., 1977), 230.

[3]Lewis R. Hamersly, The Records of Living Officers of the U.S. Navy and Marine Corps (Philadelphia, PA: J. B. Lippincott & Co., 1870), 16.

[4]Weigley, 76; Larry H. Addington, The Patterns of War Since the Eighteenth Century (Bloomington, IN: Indiana University Press, 1984), 56.

[5]Depending on the text used, the Anaconda Plan was also called the Anaconda Policy and the Anaconda Strategy.

[6]Dudley T. Cornish & Virginia J. Laas, Lincoln's Lee (Lawrence, KS: University Press of Kansas, 1986), 90.

[7]Rowena Reed, Combined Operations in the Civil War (Annapolis, MD: Naval Institute Press, 1978), 5-6.

[8]Addington, 63.

[9]In historical publications the Blockading Board was also referred to as the Strategy Board or the Committee on Conference. Throughout this thesis it will be called the Blockading Board.

[10]Reed, 9.

Chapter Two

[1]The War of the Rebellion: Official Records of the Union and Confederate Armies (Washington, D.C.: Government Printing Office, 1883) Series I, Vol. IX, 353. (cited hereinafter as ORA; additionally, all subsequent references to the ORA will be from Series I unless otherwise indicated).

[2]During the Civil War, the town of Goldsboro was often spelled Goldsboro or Goldsborough. For continuity purposes it will be spelled Goldsboro throughout this thesis.

[3]Ezra J. Warner, Generals in Blue (Baton Rouge, LA: Louisiana State University Press, 1964), 57; Mark M. Boatner III, The Civil War Dictionary (New York: David McKay Company, Inc., 1959), 107.

[4]Lewis R. Hamersly, The Records of Living Officers of the U.S. Navy and Marine Corps (Philadelphia, PA: J. B. Lippincott & Co., 1870), 11-13.

[5]Ibid., 16.

[6]Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1897), Series I, Vol 6, 550. (cited hereinafter as ORN; additionally, all subsequent references to the ORN will be from Series I unless otherwise indicated).

[7]Ibid., 590.

[8]Commander Stephen C. Rowan assumed several titles during this period to include Commanding Naval Division, U.S. Expedition in Pamlico Sound, Commanding Flotilla, Pasquotank River, Commanding Flotilla, Pamlico Sound and Commanding U.S. Flotilla, off Elizabeth City. His titles reflected his location and mission, but in every case, he was second in command of the North Atlantic Blockading Squadron under Flag Officer Goldsborough.

[9]ORN, Vol. 6, 654.

[10]Ibid.

[11]ORA, Vol. IX, 194.

[12]ORN, Vol. 6, 654.

[13]Robert M. Browning, Jr., From Cape Charles to Cape Fear (Tuscaloosa, AL: University of Alabama Press, 1993), 124; Charles W. Stewart, "Lion Hearted Flusser: A Naval Hero of the Civil War," Naval Institute Press Proceedings XXXI (June 1905): 255.

[14]ORA, Vol. IX, 211; ORN, Vol. 7, 110.

[15]The number of guns assigned to each vessel is the number listed in the official records for that year. Variations occurred from year to year as cannons were damaged and as commanding officers were able to procure additional cannons.

[16]ORA, Vol. IX, 201.

[17]Warner, 157.

[18]Ibid., 394-395.

[19]Ibid., 359-360.

[20]Philip Corell, "History of the Naval Brigade: 99th N.Y. Volunteers Union Coast Guard," in U.S. Army Military History Research Collection (New York: Regimental Veteran Association, 1905), 1-5; Frederick H. Dyer, ed., A Compendium of the War of the Rebellion (Dayton, OH: National Historic Society, 1908), 1444.

[21]ORN, Vol. 7, 113.

[22]ORA, Vol. IX, 202.

[23]ORN, Vol. 7, 117.

[24]The vessels ordered to get underway the morning of March 14 were the USS Delaware (Commander Rowan's Flagship), Hetzel, Underwriter, Lockwood, Southfield, Valley City, Louisiana, Commodore Barney, Commodore Perry, Stars and Stripes, and Brinker.

[25]ORA, Vol. IX, 213 & 242.

[26]ORN, Vol. 7, 111; ORA, Vol. IX, 244.

[27]ORN, Vol. 7, 112.

[28]ORA, Vol. IX, 206.

[29]The Official Records of the Army indicate the transport used was the Guide whereas the Official Records of the Navy indicate the transport used was the Admiral. In either case, both records do support only one Army vessel during this transit.

[30]ORA, Vol. IX, 195.

[31]ORN, Vol. 7, 710 & 736.

[32]Ibid., 440.

[33]Ibid., 548 & 573-574.

[34]The rank of Rear Admiral was created in July, 1862 and replaced the title Flag Officer.

[35]ORN, Vol. 8, 104-108; Dudley T. Cornish and Virginia J. Laas, Lincoln's Lee (Lawrence, KS: University Press of Kansas, 1986), 125.

[36]Stewart, 275-288.

[37]ORA, Vol. XVIII, 410.

[38]Ibid., 416.

[39]Ibid., 17.

[40]Cornish, 126; ORN, Vol. 8 104-109.

[41]The estimate of Confederate troops massed around Franklin, Virginia in the official correspondence and reports from General

John A. Dix (Commanding General, Department of Virginia), Brigadier General Orria S. Ferry (Commanding General, Fourth Army Corps detachment, Suffolk, Virginia), and Colonel Samuel P. Spear varies from 8,000 to 12,000. Based on the number of Confederate troops assigned to the Suffolk, Virginia area from the Confederate Department of Virginia and North Carolina, the actual estimate was likely closer to 8,000.

[42]ORN, Vol. 8, 180.

[43]Ibid.

[44]ORA, Vol. XVIII, 16.

[45]ORN, Vol. 8, 184.

[46]Ibid.

[47]Ibid., 185.

[48]Ibid., 285.

[49]Ibid.

[50]Ibid., 270.

[51]ORA, Vol. XVIII, 54-59 & 105-106; ORN, Vol. 8, 288-293.

[52]ORA, Vol. XVIII, 496.

[53]ORN, Vol. 7, 167.

[54]Louis M. Goldsborough, "Narrative of Rear Admiral Goldsborough, U.S. Navy," Naval Institute Press Proceedings 59 (July 1933): 1025.

Chapter Three

[1]The War of the Rebellion: Official Records of the Union and Confederate Armies (Washington, D.C.: Government Printing Office, 1887) Series I, Vol. XVIII, 145-148. (cited hereinafter as ORA; additionally, all subsequent references to the ORA will be from Series I unless otherwise indicated); Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1899) Series I, Vol. 8, 488-492. (cited hereinafter as ORN; additionally, all subsequent references to the ORN will be from Series I unless otherwise indicated).

[2]ORN, Vol. 8, 523.

[3]Ibid.

[4]James Longstreet, From Manassas to Appomattox, (Philadelphia: J. B. Lippincott Co., 1896), 324; quoted in D. H. Hill, Jr., Confederate Military History, Vol. V, North Carolina, (n.p.: The Confederate Publishing Company, 1899; reprint, Wilmington, NC: Broadfoot Publishing Co., 1987), 151.

[5]Ibid., 152.

[6]ORN, Vol. 8, 604-608; ORA, Vol. XVIII, 193; Robert M. Browning, From Cape Charles to Cape Fear (Tuscaloosa, AL: University of Alabama Press, 1993), 92.

[7]Alexander Murray to Charles Flusser, 19 March 1863, Area 7, Entry 463, Record Group 45, National Archives, Washington, D.C. as quoted in Browning, 93.

[8]ORN, Vol. 8, 608.

[9]Ibid., 690.

[10]Ibid., 79, 650, & 680.

[11]Ibid., 717.

[12]Ibid., 680, & 685-687.

[13]ORA, Vol. XVIII, 214, 245, 247 & 250.

[14]ORN, Vol. 8, 665.

[15]Ibid.

[16]Ibid., 669.

[17]ORA, Vol. XVIII, 1007.

[18]Ezra J. Warner, Generals in Blue (Baton Rouge, LA: Louisiana State University Press, 1964), 357-358; Mark M. Boatner III, The Civil War Dictionary (New York: David McKay Company, Inc., 1959), 616-617.

[19]Warner, 386-387; Boatner, 671.

[20]Warner, 551; Boatner, 901-902.

[21]ORN, Vol. 8, 834.

[22]ORN, Vol. 9, 25.

[23]Ibid., 43-45 & 51.

[24]Ibid., 54 & 296.

[25]Ibid., 93-94.

[26]ORA, Vol. XXVII, Part II, 919.

[27]Warner, 365.

[28]Ibid., 364-365; Boatner, 629.

[29]ORN, Vol. 9, 136.

[30]Ibid., 162 & 174.

[31]Ibid., 202 & 211. In October, the ironclad battery and the armed steamer that towed it down stream became known as the "Roanoke Sheep" for reasons not explained in the official records.

[32]Warner, 60-61; Boatner, 109.

[33]ORN, Vol. 9, 348.

[34]ORN, Vol. 8, 400.

Chapter Four

[1]Maurice Melton, The Confederate Ironclads (Cranbury, NJ: Thomas Yoseloff Publishers, 1968), 186.

[2]The War of the Rebellion: Official Records of the Union and Confederate Armies (Washington, D.C.: Government Printing Office, 1891) Series I, Vol. XXXIII, 107. (cited hereinafter as ORA; additionally, all subsequent references to the ORA will be from Series I unless otherwise indicated).

[3]Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1899) Series I, Vol. 9, 424. (cited hereinafter as ORN; additionally, all subsequent references to the ORN will be from Series I unless otherwise indicated).

[4]Ibid., 442.

[5]Ibid., 441-442.

[6]Ibid., 464.

[7]Ibid., 471 & 478.

[8]Ibid., 491.

[9]Ibid., 506.

[10]Ibid., 514-517.

[11]Ibid., 569 & 609; Melton, 186.

[12]ORN, Vol. 9, 587.

[13]Ibid., 610 & 628; ORA, Vol. XXXIII, 281 & 285.

[14]ORN, Vol. 9, 636 & 639; ORA, Vol. XXXIII, 298.

[15]ORN, Vol. 9, 638; ORA, Vol. XXXIII, 298.

[16]ORA, Vol. XXXIII, 299.

[17]ORN, Vol. 9, 668.

[18]Lewis R. Hamersly, The Records of Living Officers of the U.S. Navy and Marine Corps (Philadelphia, PA: L. R. Hamersly & Co., 1890), 21-23.

[19]ORN, Vol. 9, 691; ORA, Vol. XXXIII, 279-280.

[20]ORN, Vol. 9, 695; ORA, Vol. XXXIII, 970.

[21]ORA, Vol. XXXIII, 311-312, 1002 & 1011.

[22]ORN, Vol. 9, 734-742.

[23]ORN, Vol. 10, 17.

[24]Ibid., 145.

[25]Lewis R. Hamersly, The Records of Living Officers of the U.S. Navy and Marine Corps (Philadelphia, PA: J. B. Lippincott & Co., 1870), 61. (cited hereinafter as Hamersly: 1870.)

[26]ORN, Vol. 10, 154-155.

[27]Ibid., 247-248.

[28]Hamersly: 1870, 146-147.

[29]ORN, Vol. 10, 264-265.

[30]General Palmer reported that the expedition captured 110 bales of cotton, nearly 200 boxes of tobacco, 150 boxes of cotton yarn and the propeller steamer Arrow.

[31]ORN, Vol. 10, 319-321; ORA, Vol. XL, Part I, 821-822; ORA, Vol. XL, Part III, 501.

[32]ORN, Vol. 10, 307.

[33]Ibid., 410; ORA, Vol. XLII, Part II, 590.

[34]Dudley T. Cornish and Virginia J. Laas, Lincoln's Lee (Lawrence, KS: University of Kansas Press, 1986), 137.

[35]Gideon Welles, Diary of Gideon Welles, Secretary of the Navy under Lincoln and Johnson, Vol. 2 (New York: W. W. Norton & Co., 1960), 146.

[36]Cornish, 135-141.

[37]Hamersly: 1870, 9-10.

[38]ORN, Vol. 10, 501.

[39]Ibid.

[40]Ibid., 563.

[41]Ibid., 439, 569, & 594.

[42]Ibid., 610-616.

[43]ORN, Vol. 11, 12.

[44]Ibid., 13.

[45]Ibid., 12-18.

[46]Ibid., 103-104 & 115-116.

[47]Ibid., 123.

[48]Ibid., 177.

[49]Ibid., 160-163.

[50]Ibid., 165-169 & 172; Robert M. Browning, Jr., From Cape Charles to Cape Fear (Tuscaloosa, AL: University of Alabama Press, 1993), 116.

[51]Paul Lewis, Yankee Admiral, A Biography of David Dixon Porter (New York: David McKay Company, Inc., 1968), 155-159.

Chapter Five

[1]Official Records of the Union and Confederate Navies in the War of the Rebellion (Washington, D.C.: Government Printing Office, 1901) Series I, Vol. 12, 23. (cited hereinafter as ORN; additionally, all subsequent references to the ORN will be from Series I unless otherwise indicated).

[2]ORN, Vol. 11, 414, 618, 696 & 709.

[3]Ibid., 615; ORN, Vol. 12, 19.

[4]Ezra J. Warner, Generals in Blue (Baton Rouge, LA: Louisiana State University Press, 1964), 425-426; Mark M. Boatner III, The Civil War Dictionary (New York: David McKay Company, Inc., 1959), 726-727.

[5]The War of the Rebellion: Official Records of the Union and Confederate Armies (Washington, D.C.: Government Printing Office, 1895) Series I, Vol. 47, 909 & 911. (cited hereinafter as ORA; additionally, all subsequent references to the ORA will be from Series I unless otherwise indicated).

[6]ORN, Vol. 12, 64-65; ORA, Vol. XLVII, 912 & 931.

[7]ORN, Vol. 12, 65.

[8]ORA, Vol. XLVII, 934.

[9]ORN, Vol. 12, 87.

[10]Ibid.

[11]Ibid., 96.

[12]Ibid., 103.

[13]Ibid., 129 & 153; Paul Lewis, Yankee Admiral, A Biography of David Dixon Porter (New York: David McKay Company, Inc., 1968), 166.

[14]ORN, Vol. 12, 145, 157-158, & 163.

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